| Tr Dataset     | <ul><li>Platform</li></ul>  | # Samples Number | Genes |    | ımn with<br>ne values | Ττ Rows-Columns     | ○ Control Group | Label Number        | <ul> <li>Resampling</li> </ul> | # MCC   | # F1 score | # AUC  | Tr TPR  | Tr TNR | Tr PPV  | # NPV   |
|----------------|-----------------------------|------------------|-------|----|-----------------------|---------------------|-----------------|---------------------|--------------------------------|---------|------------|--------|---------|--------|---------|---------|
| GSE69063       | Microarrays-Affymmetrix     | 51               |       | 53 | 0                     | 51Rows- 55Columns   | Healthy         | 18sepsis_33healthy  | SMOTE                          | 0.9685  | 0.9736     | 0.9994 | 0.9600  | 0.9983 | 0.9975  | 0.9832  |
| GSE185263      | RNA-seq_illumina Hiseq      | 392              |       | 53 | 3                     | 392Rows-56Columns   | Healthy         | 348sepsis_44healthy | SMOTE                          | 0.8929  | 0.9886     | 0.9936 | 0.9881  | 0.9062 | 0.9892  | 0.9057  |
| GSE154918      | RNA-seq_illumina Hiseq      | 79               |       | 55 | 1                     | 79Rows-56columns    | Healthy         | 39sepsis-40healthy  | NO-Resampling                  | 0.9633  | 0.982      | 0.998  | 0.9925  | 0.9671 | 0.9747  | 0.9923  |
| GSE54514-Day5  | Microarray-illumina         | 32               |       | 49 | 0                     | 32rows-76columns    | Healthy         | 14sepsis-18healthy  | NO-Resampling                  | 0.7749  | 0.8911     | 0.8858 | 0.9333  | 0.77   | 0.8675  | 0.9283  |
| GSE54514-Day4  | Microarray-illumina         | 37               |       | 49 | 0                     | 37rows-76columns    | Healthy         | 19sepsis-18healthy  | NO-Resampling                  | 0.891   | 0.9314     | 0.9883 | 0.9166  | 0.9600 | 0.9693  | 0.9378  |
| GSE54514-Day3  | Microarray-illumina         | 64               |       | 49 | 0                     | 64rows-76columns    | Healthy         | 28sepsis-36healthy  | NO-Resampling                  | 0.7184  | 0.80566    | 0.9328 | 0.75400 | 0.9314 | 0.9048  | 0.8522  |
| GSE54514-Day2  | Microarray-illumina         | 67               |       | 49 | 0                     | 67rows-76columns    | Healthy         | 31sepsis-36healthy  | NO-Resampling                  | 0.7051  | 0.8123     | 0.9308 | 0.7733  | 0.9071 | 0.8956  | 0.8393  |
| GSE54514-Day1  | Microarray-illumina         | 71               |       | 49 | 0                     | 71rows-76columns    | Healthy         | 35sepsis-36healthy  | NO-Resampling                  | 0.64357 | 0.8163     | 0.8955 | 0.8385  | 0.7885 | 0.81564 | 0.8456  |
| GSE211210      | RNA-seq_illumina Novaseq    | 10               |       | 48 | 0                     | 10rows-57columns    | Healthy         | 5sepsis-5healthy    | NO-Resampling                  | 0.54    | 0.5876     | 0.6    | 0.57    | 0.57   | 0.57    | 0.57    |
| GSE100159      | Microarray-illumina         | 45               |       | 55 | 0                     | 45rows-86columns    | Control         | 33sepsis-12healthy  | SMOTE                          | 0.9677  | 0.988      | 1      | 0.9783  | 1      | 1       | 0.9583  |
| GSE60424       | RNA-seq-Illumina HiScanSQ   | 48               |       | 55 | 7-8                   | 48rows-57columns    | Healthy         | 20sepsis-28healthy  | NO-Resampling                  | 0.6041  | 0.6939     | 0.8795 | 0.6075  | 0.9280 | 0.9068  | 0.7644  |
| GSE137342-Day1 | Microarray-Illumina HumanHT | 33               |       | 53 | 0                     | 33rows-87columns    | Healthy         | 21sepsis-12healthy  | SMOTE                          | 0.94142 | 0.9714     | 1      | 0.95    | 1      | 1       | 0.9333  |
| GSE137342-Day2 | Microarray-Illumina HumanHT | 34               |       | 53 | 0                     | 34rows-87columns    | Healthy         | 22sepsis-12healthy  | SMOTE                          | 0.9452  | 0.9723     | 0.9987 | 0.9525  | 1      | 1       | 0.9383  |
| GSE28750       | Microarrays-Affymmetrix     | 30               |       | 55 | 0                     | 30rows-100columns   | Healthy         | 10sepsis-20healthy  | SMOTE                          | 0.9655  | 0.9687     | 1      | 0.95312 | 1      | 1       | 0.98125 |
| GSE243217      | RNA-seq- MGISEQ-2000RS      | 37               |       | 54 | 5-6                   | 37rows-56columns    | Healthy         | 22sepsis-15healthy  | SMOTE                          | 1       | 1          | 1      | 1       | 1      | 1       | 1       |
| GSE9960        | Microarrays-Affymmetrix     | 70               |       | 55 | 0                     | 70 rows_101 columns | Control         | 54sepsis-16Control  | SMOTE                          | 0.0897  | 0.79372    | 0.6577 | 0.8041  | 0.2852 | 0.7912  | 0.301   |
| GSE241238      | RNA-seq_illumina Novaseq    | 8                |       | 55 | 2                     | 8rows-57columns     | Healthy         | 4sepsis-4healthy    | NO-Resampling                  | 1       | 1          | 1      | 1       | 1      | 1       | 1       |
| GSE49754       | Microarray-illumina         | 36               |       | 49 | 2-3                   | 36rows-77columns    | Control         | 24sepsis-12healthy  | SMOTE                          | 0.84813 | 0.9398     | 0.9783 | 0.9362  | 0.8979 | 0.9581  | 0.9098  |
| GSE236713-Day1 | Microarray-agillent         | 155              |       | 53 | 0                     | 155rows-78columns   | Healthy         | 125sepsis-30healthy | SMOTE                          | 0.94404 | 0.9877     | 0.9994 | 0.9828  | 0.9716 | 0.9934  | 0.9425  |
| GSE236713-Day2 | Microarray-agilent          | 123              |       | 53 | 0                     | 123rows-78columns   | Healthy         | 93sepsis-30healthy  | SMOTE                          | 0.9351  | 0.981      | 0.9973 | 0.9694  | 0.9816 | 0.9942  | 0.9268  |
| GSE236713-Day5 | Microarray-agillent         | 99               |       | 53 | 0                     | 99rows-78columns    | Healthy         | 69sepsis-30healthy  | SMOTE                          | 0.9823  | 0.9936     | 1      | 0.9876  | 1      | 1       | 0.9771  |
| GSE196117-Day1 | RNA-seq_illumina Hiseq      | 15               |       | 53 | 2                     | 15rows-55columns    | Healthy         | 8sepsis-7healthy    | NO-Resampling                  | 1       | 1          | 1      | 1       | 1      | 1       | 1       |
| GSE196117-Day5 | RNA-seq_illumina Hiseq      | 14               |       | 53 | 2                     | 14rows-55columns    | Healthy         | 7sepsis-7healthy    | NO-Resampling                  | 1       | 1          | 1      | 1       | 1      | 1       | 1       |
| GSE6535        | Microarray-NHICU Human      | 62               |       | 52 | 0                     | 61rows-57columns    | Control         | 47sepsis-14control  | SMOTE                          | 0.43083 | 0.8951     | 0.7878 | 0.9030  | 0.5    | 0.8917  | 0.5824  |