**S2 Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **T-Cell Response Set****Significant GO Terms** | **P Value** | **Fold Enrichment** | **Benjamini** | **FDR** |
| **CD4+T-cells\_3rd-** | 5.87E-11 | 4.28 | *5.7E-13* | 8.02E-08 |
| **Cancer and B-Cell Response Set** **Significant GO Terms** | **P Value** | **Fold Enrichment** | **Benjamini** | **FDR** |
| **mammary gland invasive breast cancer,** **ER+, PR+, Her-, grade II** | 8.24E-08 | 3.86 | *7.11E-06* | 1.12E-04 |
| **alternative splicing** | 7.13E-06 | 1.46 | *7.30E-04* | 0.009 |
| **white blood cells monocyte** | 1.37E-06 | 2.72 | *7.85E-05* | 0.002 |
| **mammary gland carcinoma** | 0.0314 | 1.64 | 0.1106 | 35.333 |
| **PB-CD14+Monocytes** | 0.0058 | 1.16 | *0.0213* | 5.950 |
| **PB-CD19+Bcells** | 0.0233 | 1.13 | 0.0710 | 22.102 |
| **Brain benign meningioma of the meningothelial** **subtype** | 0.0051 | 2.15 | *0.0259* | 6.720 |
| **mammary gland neoplasia** | 4.84E-04 | 9.16 | 0.0905 | 0.884 |
| **regulation of immunoglobulin production** | 0.0210 | 13.23 | 0.7410 | 28.598 |
| **regulation of production of molecular****mediator of immune response** | 0.0489 | 8.39 | 0.7473 | 54.756 |
| **Stem Cell Set****Significant GO Terms** | **P Value** | **Fold Enrichment** | **Benjamini** | **FDR** |
| **stem cell expression** | 5.87E-11 | 4.28 | *4.06E-09* | 8.02E-08 |
| **colorectal carcinoma** | 1.02E-10 | 4.80 | *4.41E-09* | 1.39E-07 |
| **nuclear mRNA splicing, via spliceosome** | 7.35E-07 | 11.88 | *8.49E-05* | 0.0011 |
| **white blood cells - monocyte** | 0.0032 | 2.13 | *0.0131* | 4.2761 |
| **AR-Correlated Set****Significant GO Terms** | **P Value** | **Fold Enrichment** | **Benjamini** | **FDR** |
| **WHOLE BLOOD** | 7.70E-04 | 1.965 | 0.0561 | 0.8052 |
| **BM-CD105+Endothelial** | 0.0021 | 1.968 | *0.0508* | 2.1641 |
| **Hormone Receptor Targets Set** **Significant GO Terms** | **P Value** | **Fold Enrichment** | **Benjamini** | **FDR** |
| **vitamin D receptor binding** | 0.0011 | 58.39 | *0.046* | 1.27 |
| **hormone receptor binding** | 8.72E-04 | 20.34 | 0.055 | 1.01 |
| **thyroid hormone receptor binding** | 0.0021 | 41.97 | 0.067 | 2.46 |
| **nuclear hormone receptor binding** | 5.91E-04 | 23.25 | 0.073 | 0.68 |
| **PPARA** | 9.53E-04 | 1.57 | 0.155 | 1.16 |
| **NFKAPPAB65** | 0.0020 | 2.22 | 0.166 | 2.49 |
| **transcription cofactor activity** | 0.0072 | 6.16 | 0.172 | 8.11 |