

Table S6: Individual performances of biomarkers correlating with CD8 infiltration in the whole tumor (high, intermediate or low infiltration). The table reports the number of patients (N) for which the biomarkers could be measured. The area under the curve (AUC) via receiver operating characteristics (ROC), P-value (Wilcox rank-sum test) and log fold change (FC) are reported for each biomarker. The log FC compared case vs. control. A positive log FC indicates that the measurement is higher than its reference while a negative measurement indicates that is smaller. Based on these statistics AUC, P-value, log FC scores were computed. The final score combines the 3 scores, where AUC weighted double. The biomarkers are ranked based on their final score.

|                              | Blood markers                                                    | N  | AUC   | P-value | log FC | AUC score | P-value score | log FC score | Final score |
|------------------------------|------------------------------------------------------------------|----|-------|---------|--------|-----------|---------------|--------------|-------------|
| <b>HIGH CD8 INFILTRATION</b> |                                                                  |    |       |         |        |           |               |              |             |
| 1                            | TEMRA CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.268 | 0.009   | 0.646  | 10        | 14            | 59           | 23.25       |
| 2                            | TEMRA CD8 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.281 | 0.014   | 0.565  | 17        | 19            | 69           | 30.5        |
| 3                            | Tumor grade                                                      | 62 | 0.200 | 0.000   | 0.357  | 2         | 1             | 126          | 32.75       |
| 4                            | TEMRA CD4 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.306 | 0.029   | 0.767  | 29        | 31            | 47           | 34          |
| 5                            | IL-1α                                                            | 62 | 0.723 | 0.009   | -0.455 | 16        | 13            | 91           | 34          |
| 6                            | miR-195                                                          | 62 | 0.319 | 0.033   | 1.000  | 39        | 33            | 32           | 35.75       |
| 7                            | TEMRA CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.315 | 0.037   | 0.771  | 35        | 37            | 46           | 38.25       |
| 8                            | Age                                                              | 62 | 0.728 | 0.007   | -0.296 | 13        | 11            | 163          | 50          |
| 9                            | Gal-9                                                            | 62 | 0.652 | 0.073   | -0.658 | 60        | 55            | 55           | 57.5        |
| 10                           | TEMRA CD4 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.356 | 0.105   | 0.776  | 65        | 77            | 45           | 63          |
| 11                           | TIM-3                                                            | 62 | 0.648 | 0.081   | -0.537 | 63        | 61            | 71           | 64.5        |
| 12                           | miR-150                                                          | 62 | 0.358 | 0.094   | 0.610  | 67        | 70            | 61           | 66.25       |
| 13                           | miR-424                                                          | 62 | 0.643 | 0.093   | -0.474 | 66        | 69            | 83           | 71          |
| 14                           | miR-125b                                                         | 62 | 0.369 | 0.122   | 0.357  | 77        | 85            | 127          | 91.5        |
| 15                           | sCD25                                                            | 62 | 0.626 | 0.138   | -0.381 | 87        | 93            | 114          | 95.25       |
| 16                           | B-cells                                                          | 54 | 0.634 | 0.133   | -0.276 | 74        | 90            | 176          | 103.5       |
| 17                           | EM CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.391 | 0.220   | 0.375  | 113       | 130           | 119          | 118.75      |
| 18                           | 4-1BB                                                            | 62 | 0.417 | 0.241   | 2.115  | 172       | 140           | 5            | 122.25      |
| 19                           | Class-switched memory B-cells                                    | 54 | 0.384 | 0.192   | 0.257  | 104       | 119           | 186          | 128.25      |
| 20                           | Monocytes                                                        | 54 | 0.374 | 0.160   | 0.164  | 89        | 99            | 260          | 134.25      |
| 21                           | IFN-γ                                                            | 62 | 0.591 | 0.284   | -0.486 | 154       | 160           | 80           | 137         |
| 22                           | IP-10                                                            | 62 | 0.607 | 0.210   | -0.243 | 118       | 129           | 199          | 141         |
| 23                           | CD86                                                             | 62 | 0.598 | 0.253   | -0.324 | 138       | 149           | 142          | 141.75      |
| 24                           | Intermediate monocytes                                           | 54 | 0.619 | 0.185   | -0.160 | 100       | 114           | 265          | 144.75      |
| 25                           | TEMRA CD8 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.396 | 0.243   | 0.252  | 123       | 144           | 190          | 145         |
| 26                           | IL-6                                                             | 62 | 0.586 | 0.315   | -0.460 | 167       | 171           | 87           | 148         |
| 27                           | TEMRA CD4 <sup>+</sup> cells                                     | 54 | 0.402 | 0.274   | 0.258  | 137       | 156           | 184          | 153.5       |
| 28                           | miR-20a                                                          | 62 | 0.400 | 0.240   | 0.232  | 134       | 139           | 211          | 154.5       |
| 29                           | TEMRA CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.417 | 0.354   | -0.426 | 171       | 186           | 100          | 157         |
| 30                           | TNF-α                                                            | 62 | 0.573 | 0.393   | -0.652 | 191       | 197           | 57           | 159         |
| 31                           | EM CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.403 | 0.283   | 0.243  | 141       | 159           | 198          | 159.75      |
| 32                           | miR-223                                                          | 62 | 0.412 | 0.299   | 0.282  | 159       | 166           | 173          | 164.25      |
| 33                           | IL-27                                                            | 62 | 0.579 | 0.355   | -0.355 | 179       | 187           | 128          | 168.25      |
| 34                           | EM CD4 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.409 | 0.310   | 0.240  | 153       | 170           | 202          | 169.5       |
| 35                           | miR-326                                                          | 62 | 0.579 | 0.275   | -0.257 | 178       | 157           | 187          | 175         |
| 36                           | IL12p70                                                          | 62 | 0.565 | 0.449   | -0.606 | 210       | 219           | 63           | 175.5       |
| 37                           | TEMRA CD4 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.433 | 0.457   | -0.474 | 203       | 223           | 82           | 177.75      |

|    |                                                                  |    |       |       |        |     |     |     |        |
|----|------------------------------------------------------------------|----|-------|-------|--------|-----|-----|-----|--------|
| 38 | Naive Tregs                                                      | 54 | 0.602 | 0.258 | -0.085 | 130 | 153 | 319 | 183    |
| 39 | Naive B-cells                                                    | 54 | 0.590 | 0.319 | -0.165 | 155 | 173 | 259 | 185.5  |
| 40 | CM CD8 <sup>+</sup> cells                                        | 54 | 0.568 | 0.451 | -0.371 | 202 | 221 | 120 | 186.25 |
| 41 | CD8 <sup>+</sup> cells                                           | 54 | 0.412 | 0.328 | 0.156  | 162 | 175 | 266 | 191.25 |
| 42 | TEMRA CD8 <sup>+</sup> cells                                     | 54 | 0.414 | 0.334 | 0.154  | 164 | 178 | 267 | 193.25 |
| 43 | Naive CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>-</sup> cells | 54 | 0.394 | 0.235 | -0.001 | 119 | 137 | 400 | 193.75 |
| 44 | miR-126                                                          | 62 | 0.437 | 0.459 | 0.349  | 218 | 224 | 131 | 197.75 |
| 45 | miR-9                                                            | 62 | 0.453 | 0.522 | 1.358  | 265 | 251 | 22  | 200.75 |
| 46 | CM CD4 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.573 | 0.421 | -0.226 | 194 | 206 | 216 | 202.5  |
| 47 | MCP-1                                                            | 62 | 0.583 | 0.330 | -0.128 | 174 | 176 | 289 | 203.25 |
| 48 | Memory Tregs                                                     | 54 | 0.421 | 0.378 | 0.141  | 177 | 193 | 278 | 206.25 |
| 49 | CM CD4 <sup>+</sup> cells                                        | 54 | 0.569 | 0.444 | -0.227 | 200 | 216 | 214 | 207.5  |
| 50 | Naive CD4 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.571 | 0.433 | -0.197 | 197 | 208 | 238 | 210    |
| 51 | miR-19a                                                          | 62 | 0.426 | 0.385 | 0.154  | 190 | 195 | 269 | 211    |
| 52 | Naive CD4 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.569 | 0.440 | -0.192 | 201 | 211 | 241 | 213.5  |
| 53 | IL-17F                                                           | 62 | 0.469 | 0.443 | 1.502  | 314 | 214 | 14  | 214    |
| 54 | CM CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>-</sup> cells    | 54 | 0.439 | 0.481 | -0.296 | 229 | 240 | 164 | 215.5  |
| 55 | NK-like T-cells                                                  | 54 | 0.450 | 0.582 | 0.462  | 257 | 269 | 85  | 217    |
| 56 | CM CD8 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.556 | 0.530 | -0.354 | 243 | 257 | 130 | 218.25 |
| 57 | IL-17A                                                           | 62 | 0.460 | 0.641 | 2.086  | 287 | 294 | 6   | 218.5  |
| 58 | PD-1                                                             | 62 | 0.457 | 0.612 | -0.844 | 275 | 285 | 39  | 218.5  |
| 59 | miR-92a                                                          | 62 | 0.438 | 0.469 | 0.240  | 224 | 230 | 200 | 219.5  |
| 60 | Free active TGF- $\beta$ 1                                       | 62 | 0.522 | 0.415 |        | 341 | 203 | 2   | 221.75 |
| 61 | EM CD4 <sup>+</sup> cells                                        | 54 | 0.436 | 0.475 | 0.198  | 212 | 233 | 233 | 222.5  |
| 62 | CD4 <sup>+</sup> CD28 <sup>+</sup> cells                         | 54 | 0.588 | 0.325 | 0.001  | 161 | 174 | 401 | 224.25 |
| 63 | CM CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.550 | 0.579 | -0.358 | 254 | 267 | 125 | 225    |
| 64 | Naive CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.564 | 0.479 | -0.198 | 214 | 238 | 237 | 225.75 |
| 65 | CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>-</sup> cells       | 54 | 0.422 | 0.385 | -0.042 | 180 | 194 | 358 | 228    |
| 66 | Naive CD4 <sup>+</sup> cells                                     | 54 | 0.564 | 0.479 | -0.174 | 213 | 237 | 255 | 229.5  |
| 67 | EM CD4 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.454 | 0.609 | 0.404  | 268 | 282 | 104 | 230.5  |
| 68 | Classical monocytes                                              | 54 | 0.422 | 0.389 | 0.018  | 181 | 196 | 381 | 234.75 |
| 69 | CM CD8 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.545 | 0.616 | -0.376 | 271 | 287 | 117 | 236.5  |
| 70 | CM CD4 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.557 | 0.528 | -0.198 | 237 | 252 | 235 | 240.25 |
| 71 | IL-8                                                             | 62 | 0.565 | 0.449 | -0.075 | 211 | 220 | 325 | 241.75 |
| 72 | miR-17                                                           | 62 | 0.443 | 0.504 | 0.181  | 241 | 246 | 248 | 244    |
| 73 | EM CD4 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.443 | 0.528 | 0.163  | 238 | 253 | 262 | 247.75 |
| 74 | CM CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.554 | 0.549 | -0.196 | 247 | 260 | 240 | 248.5  |
| 75 | CD56 <sup>dim</sup> CD16 <sup>+</sup> NK-cells                   | 54 | 0.434 | 0.467 | 0.038  | 207 | 228 | 362 | 251    |
| 76 | Naive CD8 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.438 | 0.487 | -0.085 | 223 | 242 | 318 | 251.5  |
| 77 | TEMRA CD8 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.443 | 0.528 | 0.137  | 239 | 254 | 281 | 253.25 |
| 78 | Tregs                                                            | 54 | 0.559 | 0.511 | -0.111 | 233 | 249 | 298 | 253.25 |
| 79 | miR-146a                                                         | 62 | 0.437 | 0.459 | 0.047  | 219 | 225 | 351 | 253.5  |
| 80 | Myeloid dendritic cells                                          | 54 | 0.449 | 0.569 | 0.143  | 252 | 265 | 276 | 261.25 |
| 81 | EM CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>-</sup> cells    | 54 | 0.436 | 0.475 | -0.007 | 215 | 234 | 390 | 263.5  |
| 82 | CD3 <sup>+</sup> cells                                           | 54 | 0.440 | 0.505 | 0.053  | 231 | 247 | 349 | 264.5  |

|     |                                                                  |    |       |       |        |     |     |     |        |
|-----|------------------------------------------------------------------|----|-------|-------|--------|-----|-----|-----|--------|
| 83  | IL-1 $\beta$                                                     | 62 | 0.529 | 0.741 | -0.439 | 322 | 329 | 96  | 267.25 |
| 84  | miR-18a                                                          | 62 | 0.453 | 0.584 | 0.139  | 264 | 271 | 280 | 269.75 |
| 85  | Hematopoietic stem cells                                         | 54 | 0.533 | 0.713 | -0.319 | 308 | 318 | 146 | 270    |
| 86  | miR-155                                                          | 62 | 0.466 | 0.693 | 0.273  | 304 | 310 | 180 | 274.5  |
| 87  | CRP                                                              | 62 | 0.546 | 0.593 | -0.128 | 266 | 276 | 290 | 274.5  |
| 88  | PD-L2                                                            | 62 | 0.546 | 0.593 | -0.102 | 267 | 277 | 305 | 279    |
| 89  | Tumor size                                                       | 62 | 0.541 | 0.626 | -0.147 | 283 | 291 | 270 | 281.75 |
| 90  | EM CD8 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.451 | 0.592 | 0.046  | 259 | 275 | 353 | 286.5  |
| 91  | Non-classical monocytes                                          | 54 | 0.552 | 0.566 | -0.015 | 250 | 264 | 386 | 287.5  |
| 92  | CD4 <sup>+</sup> CD57 <sup>+</sup> cells                         | 54 | 0.451 | 0.592 | -0.028 | 258 | 274 | 374 | 291    |
| 93  | sCD27                                                            | 62 | 0.457 | 0.616 | -0.065 | 276 | 288 | 341 | 295.25 |
| 94  | TEMRA CD8 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells | 54 | 0.461 | 0.664 | 0.096  | 289 | 302 | 307 | 296.75 |
| 95  | CD4 <sup>+</sup> Tregs                                           | 54 | 0.545 | 0.616 | 0.029  | 272 | 286 | 372 | 300.5  |
| 96  | CD8 <sup>+</sup> CD57 <sup>+</sup> cells                         | 54 | 0.462 | 0.674 | 0.088  | 291 | 306 | 316 | 301    |
| 97  | IL-10                                                            | 62 | 0.520 | 0.815 | -0.276 | 345 | 347 | 175 | 303    |
| 98  | miR-21                                                           | 62 | 0.537 | 0.670 | 0.089  | 298 | 303 | 314 | 303.25 |
| 99  | CM CD8 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells    | 54 | 0.511 | 0.908 | -0.476 | 378 | 378 | 81  | 303.75 |
| 100 | CD4 <sup>+</sup> CD27 <sup>+</sup> cells                         | 54 | 0.542 | 0.643 | -0.034 | 278 | 295 | 366 | 304.25 |
| 101 | CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells       | 54 | 0.542 | 0.646 | -0.033 | 279 | 296 | 368 | 305.5  |
| 102 | IGF-1                                                            | 62 | 0.462 | 0.661 | 0.061  | 293 | 300 | 348 | 308.5  |
| 103 | CM CD8 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.511 | 0.908 | -0.431 | 379 | 379 | 99  | 309    |
| 104 | CD4/CD8 ratio                                                    | 54 | 0.526 | 0.779 | -0.183 | 330 | 338 | 245 | 310.75 |
| 105 | T-cell <i>P16<sup>INK4a</sup></i>                                | 42 | 0.500 | 1.000 | -0.704 | 402 | 402 | 49  | 313.75 |
| 106 | let-7i                                                           | 62 | 0.533 | 0.705 | -0.083 | 310 | 315 | 322 | 314.25 |
| 107 | Naive CD8 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells | 54 | 0.467 | 0.714 | -0.061 | 307 | 319 | 345 | 319.5  |
| 108 | miR-19b                                                          | 62 | 0.470 | 0.729 | 0.073  | 319 | 325 | 328 | 322.75 |
| 109 | PD-L1                                                            | 62 | 0.482 | 0.841 | 0.198  | 353 | 354 | 236 | 324    |
| 110 | Plasmacytoid dendritic cells                                     | 54 | 0.479 | 0.817 | -0.163 | 343 | 349 | 261 | 324    |
| 111 | Naive CD8 <sup>+</sup> cells                                     | 54 | 0.525 | 0.789 | -0.124 | 334 | 339 | 295 | 325.5  |
| 112 | CD8 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells       | 54 | 0.472 | 0.760 | 0.065  | 323 | 332 | 340 | 329.5  |
| 113 | Naive CD8 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.515 | 0.877 | -0.179 | 361 | 363 | 251 | 334    |
| 114 | EM CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.482 | 0.847 | -0.127 | 351 | 355 | 291 | 337    |
| 115 | Naive CD4 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.476 | 0.794 | -0.069 | 336 | 341 | 337 | 337.5  |
| 116 | let-7e                                                           | 62 | 0.514 | 0.879 | -0.144 | 364 | 365 | 274 | 341.75 |
| 117 | EM CD8 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.486 | 0.885 | -0.140 | 363 | 369 | 279 | 343.5  |
| 118 | CD8 <sup>+</sup> CD28 <sup>+</sup> cells                         | 54 | 0.523 | 0.804 | -0.039 | 339 | 345 | 360 | 345.75 |
| 119 | miR-181a                                                         | 62 | 0.523 | 0.791 | -0.020 | 338 | 340 | 380 | 349    |
| 120 | Naive CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.509 | 0.924 | -0.168 | 381 | 383 | 258 | 350.75 |
| 121 | Naive CD8 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.513 | 0.892 | -0.117 | 368 | 373 | 296 | 351.25 |
| 122 | LAG-3                                                            | 62 | 0.503 | 0.981 | -0.208 | 396 | 397 | 224 | 353.25 |
| 123 | CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells       | 54 | 0.515 | 0.877 | -0.071 | 360 | 362 | 332 | 353.5  |
| 124 | CD8 <sup>+</sup> CD27 <sup>+</sup> cells                         | 54 | 0.515 | 0.870 | -0.062 | 358 | 358 | 344 | 354.5  |
| 125 | CTLA-4                                                           | 62 | 0.483 | 0.763 | -0.017 | 355 | 334 | 384 | 357    |
| 126 | NK-cells                                                         | 54 | 0.518 | 0.849 | -0.022 | 350 | 356 | 378 | 358.5  |
| 127 | Non-switched memory B-cells                                      | 54 | 0.485 | 0.879 | -0.043 | 359 | 366 | 357 | 360.25 |

|                               |                                                                  |    |       |       |        |     |     |     |        |
|-------------------------------|------------------------------------------------------------------|----|-------|-------|--------|-----|-----|-----|--------|
| 128                           | G8 score                                                         | 27 | 0.479 | 0.937 | -0.028 | 344 | 387 | 373 | 362    |
| 129                           | CD56 <sup>bright</sup> CD16 <sup>-</sup> NK-cells                | 54 | 0.512 | 0.900 | -0.063 | 373 | 377 | 343 | 366.5  |
| 130                           | Lymph node involvement                                           | 62 | 0.511 | 0.889 | -0.061 | 380 | 370 | 346 | 369    |
| 131                           | CM CD4 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.497 | 0.977 | -0.040 | 394 | 395 | 359 | 385.5  |
| 132                           | CD4 <sup>+</sup> cells                                           | 54 | 0.491 | 0.924 | 0.004  | 382 | 384 | 396 | 386    |
| 133                           | EM CD8 <sup>+</sup> cells                                        | 54 | 0.504 | 0.970 | -0.027 | 392 | 392 | 375 | 387.75 |
| 134                           | EM CD8 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.494 | 0.954 | -0.016 | 388 | 390 | 385 | 387.75 |
| INTERMEDIATE CD8 INFILTRATION |                                                                  |    |       |       |        |     |     |     |        |
| 1                             | CD4 <sup>+</sup> cells                                           | 54 | 0.769 | 0.001 | -0.607 | 4   | 3   | 62  | 18.25  |
| 2                             | CD4/CD8 ratio                                                    | 54 | 0.701 | 0.012 | -0.682 | 24  | 18  | 51  | 29.25  |
| 3                             | Memory Tregs                                                     | 54 | 0.724 | 0.005 | -0.369 | 15  | 7   | 121 | 39.5   |
| 4                             | EM CD4 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.338 | 0.043 | 0.510  | 48  | 39  | 75  | 52.5   |
| 5                             | Tregs                                                            | 54 | 0.657 | 0.050 | -0.596 | 54  | 42  | 66  | 54     |
| 6                             | TEMRA CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.669 | 0.035 | -0.409 | 43  | 35  | 103 | 56     |
| 7                             | CM CD8 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.651 | 0.060 | -0.559 | 62  | 45  | 70  | 59.75  |
| 8                             | TEMRA CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.640 | 0.080 | -0.696 | 69  | 60  | 50  | 62     |
| 9                             | CD4 <sup>+</sup> CD57 <sup>+</sup> cells                         | 54 | 0.368 | 0.100 | 0.863  | 76  | 75  | 38  | 66.25  |
| 10                            | TEMRA CD4 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.637 | 0.088 | -0.658 | 72  | 67  | 54  | 66.25  |
| 11                            | T-cell <i>P16</i> <sup>INK4a</sup>                               | 42 | 0.372 | 0.159 | 1.329  | 83  | 98  | 23  | 71.75  |
| 12                            | CM CD8 <sup>+</sup> cells                                        | 54 | 0.633 | 0.096 | -0.492 | 75  | 72  | 78  | 75     |
| 13                            | Naive Tregs                                                      | 54 | 0.290 | 0.008 | 0.168  | 20  | 12  | 257 | 77.25  |
| 14                            | CD3 <sup>+</sup> cells                                           | 54 | 0.685 | 0.021 | -0.202 | 37  | 24  | 229 | 81.75  |
| 15                            | CM CD8 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.628 | 0.111 | -0.420 | 85  | 79  | 102 | 87.75  |
| 16                            | CM CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.625 | 0.120 | -0.458 | 91  | 83  | 88  | 88.25  |
| 17                            | CD86                                                             | 62 | 0.374 | 0.090 | 0.387  | 88  | 68  | 109 | 88.25  |
| 18                            | CD8 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells       | 54 | 0.372 | 0.112 | 0.382  | 84  | 80  | 113 | 90.25  |
| 19                            | miR-19a                                                          | 62 | 0.629 | 0.083 | -0.319 | 82  | 63  | 145 | 93     |
| 20                            | CD8 <sup>+</sup> CD28 <sup>+</sup> cells                         | 54 | 0.644 | 0.071 | -0.250 | 64  | 54  | 191 | 93.25  |
| 21                            | CD4 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells       | 54 | 0.392 | 0.180 | 0.914  | 115 | 112 | 34  | 94     |
| 22                            | TEMRA CD4 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.395 | 0.192 | 1.292  | 122 | 117 | 26  | 96.75  |
| 23                            | CD8 <sup>+</sup> CD57 <sup>+</sup> cells                         | 54 | 0.374 | 0.116 | 0.317  | 86  | 82  | 148 | 100.5  |
| 24                            | EM CD4 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells    | 54 | 0.388 | 0.161 | 0.458  | 108 | 101 | 89  | 101.5  |
| 25                            | Naive CD8 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.622 | 0.128 | -0.339 | 94  | 88  | 134 | 102.5  |
| 26                            | sCD27                                                            | 62 | 0.623 | 0.098 | -0.314 | 93  | 73  | 152 | 102.75 |
| 27                            | TEMRA CD4 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.607 | 0.185 | -0.528 | 116 | 113 | 72  | 104.25 |
| 28                            | Naive CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.624 | 0.124 | -0.311 | 92  | 87  | 155 | 106.5  |
| 29                            | TEMRA CD8 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.620 | 0.134 | -0.321 | 99  | 91  | 144 | 108.25 |
| 30                            | Hematopoietic stem cells                                         | 54 | 0.391 | 0.173 | 0.421  | 114 | 106 | 101 | 108.75 |
| 31                            | Naive CD8 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.620 | 0.134 | -0.298 | 98  | 92  | 161 | 112.25 |
| 32                            | MCP-1                                                            | 62 | 0.635 | 0.069 | -0.174 | 73  | 51  | 254 | 112.75 |
| 33                            | CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells       | 54 | 0.622 | 0.130 | -0.274 | 95  | 89  | 179 | 114.5  |
| 34                            | 4-1BB                                                            | 62 | 0.585 | 0.169 | -1.475 | 169 | 104 | 18  | 115    |
| 35                            | Gal-9                                                            | 62 | 0.382 | 0.113 | 0.270  | 101 | 81  | 182 | 116.25 |
| 36                            | Naive CD4 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.404 | 0.233 | 0.680  | 142 | 133 | 52  | 117.25 |
| 37                            | G8 score                                                         | 27 | 0.686 | 0.098 | -0.069 | 34  | 74  | 335 | 119.25 |

|    |                                                                  |    |       |       |        |     |     |     |        |
|----|------------------------------------------------------------------|----|-------|-------|--------|-----|-----|-----|--------|
| 38 | IFN- $\gamma$                                                    | 62 | 0.403 | 0.189 | 0.391  | 139 | 116 | 107 | 125.25 |
| 39 | TEMRA CD4 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells | 54 | 0.414 | 0.284 | 1.300  | 166 | 161 | 25  | 129.5  |
| 40 | TEMRA CD8 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells | 54 | 0.404 | 0.233 | 0.382  | 143 | 134 | 111 | 132.75 |
| 41 | CD8 <sup>+</sup> CD27 <sup>+</sup> cells                         | 54 | 0.612 | 0.164 | -0.226 | 110 | 102 | 215 | 134.25 |
| 42 | Naive CD8 <sup>+</sup> cells                                     | 54 | 0.604 | 0.196 | -0.287 | 126 | 121 | 169 | 135.5  |
| 43 | TEMRA CD8 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.401 | 0.222 | 0.316  | 135 | 131 | 149 | 137.5  |
| 44 | Tumor grade                                                      | 62 | 0.610 | 0.081 | -0.145 | 112 | 62  | 273 | 139.75 |
| 45 | Lymph node involvement                                           | 62 | 0.419 | 0.207 | 0.456  | 176 | 128 | 90  | 142.5  |
| 46 | CTLA-4                                                           | 62 | 0.561 | 0.202 | -1.576 | 228 | 123 | 10  | 147.25 |
| 47 | NK-cells                                                         | 54 | 0.404 | 0.235 | 0.275  | 144 | 138 | 178 | 151    |
| 48 | miR-92a                                                          | 62 | 0.595 | 0.202 | -0.254 | 147 | 124 | 189 | 151.75 |
| 49 | CD4 <sup>+</sup> CD28 <sup>+</sup> cells                         | 54 | 0.611 | 0.166 | -0.136 | 111 | 103 | 284 | 152.25 |
| 50 | CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells       | 54 | 0.604 | 0.196 | -0.173 | 125 | 120 | 256 | 156.5  |
| 51 | IL-17F                                                           | 62 | 0.548 | 0.175 | -7.396 | 261 | 108 | 4   | 158.5  |
| 52 | Monocytes                                                        | 54 | 0.417 | 0.303 | 0.341  | 170 | 168 | 133 | 160.25 |
| 53 | IL-1 $\alpha$                                                    | 62 | 0.399 | 0.176 | 0.135  | 132 | 109 | 285 | 164.5  |
| 54 | CD4 <sup>+</sup> CD27 <sup>+</sup> cells                         | 54 | 0.597 | 0.226 | -0.146 | 140 | 132 | 271 | 170.75 |
| 55 | miR-326                                                          | 62 | 0.435 | 0.307 | 0.431  | 209 | 169 | 98  | 171.25 |
| 56 | Free active TGF- $\beta$ 1                                       | 62 | 0.467 | 0.147 |        | 306 | 95  | 1   | 177    |
| 57 | miR-126                                                          | 62 | 0.405 | 0.202 | 0.132  | 148 | 125 | 287 | 177    |
| 58 | CD56 <sup>bright</sup> CD16 <sup>-</sup> NK-cells                | 54 | 0.575 | 0.352 | -0.296 | 188 | 184 | 165 | 181.25 |
| 59 | EM CD8 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.592 | 0.257 | -0.136 | 152 | 151 | 283 | 184.5  |
| 60 | miR-9                                                            | 62 | 0.548 | 0.449 | -1.481 | 260 | 218 | 16  | 188.5  |
| 61 | TNF- $\alpha$                                                    | 62 | 0.434 | 0.374 | 0.301  | 205 | 192 | 159 | 190.25 |
| 62 | TEMRA CD8 <sup>+</sup> cells                                     | 54 | 0.424 | 0.347 | 0.217  | 185 | 183 | 219 | 193    |
| 63 | Age                                                              | 62 | 0.411 | 0.234 | 0.071  | 158 | 135 | 333 | 196    |
| 64 | NK-like T-cells                                                  | 54 | 0.428 | 0.370 | 0.235  | 195 | 189 | 207 | 196.5  |
| 65 | TEMRA CD8 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.586 | 0.284 | -0.125 | 165 | 162 | 294 | 196.5  |
| 66 | Naive B-cells                                                    | 54 | 0.576 | 0.346 | -0.179 | 183 | 182 | 250 | 199.5  |
| 67 | miR-150                                                          | 62 | 0.556 | 0.455 | -0.355 | 244 | 222 | 129 | 209.75 |
| 68 | EM CD8 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells    | 54 | 0.446 | 0.503 | 0.391  | 246 | 245 | 108 | 211.25 |
| 69 | Plasmacytoid dendritic cells                                     | 54 | 0.442 | 0.470 | 0.284  | 235 | 232 | 172 | 218.5  |
| 70 | LAG-3                                                            | 62 | 0.439 | 0.413 | 0.208  | 226 | 202 | 223 | 219.25 |
| 71 | B-cells                                                          | 54 | 0.438 | 0.442 | 0.202  | 220 | 213 | 230 | 220.75 |
| 72 | EM CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.575 | 0.352 | -0.067 | 187 | 185 | 338 | 224.25 |
| 73 | CD8 <sup>+</sup> cells                                           | 54 | 0.440 | 0.463 | 0.205  | 232 | 226 | 227 | 229.25 |
| 74 | Non-classical monocytes                                          | 54 | 0.556 | 0.495 | -0.245 | 245 | 244 | 197 | 232.75 |
| 75 | IL-1 $\beta$                                                     | 62 | 0.453 | 0.530 | 0.307  | 263 | 258 | 158 | 235.5  |
| 76 | EM CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.551 | 0.528 | -0.213 | 251 | 256 | 221 | 244.75 |
| 77 | IL-17A                                                           | 62 | 0.472 | 0.714 | -1.075 | 327 | 320 | 29  | 250.75 |
| 78 | IP-10                                                            | 62 | 0.442 | 0.438 | 0.066  | 236 | 209 | 339 | 255    |
| 79 | PD-1                                                             | 62 | 0.478 | 0.767 | 1.499  | 340 | 335 | 15  | 257.5  |
| 80 | IL-8                                                             | 62 | 0.557 | 0.447 | -0.072 | 242 | 217 | 330 | 257.75 |
| 81 | EM CD4 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.546 | 0.575 | -0.198 | 269 | 266 | 234 | 259.5  |
| 82 | Naive CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.550 | 0.540 | -0.154 | 256 | 259 | 268 | 259.75 |

|     |                                                                  |    |       |       |        |     |     |     |        |
|-----|------------------------------------------------------------------|----|-------|-------|--------|-----|-----|-----|--------|
| 83  | PD-L1                                                            | 62 | 0.463 | 0.622 | 0.285  | 296 | 290 | 171 | 263.25 |
| 84  | miR-21                                                           | 62 | 0.449 | 0.494 | -0.104 | 253 | 243 | 304 | 263.25 |
| 85  | Non-switched memory B-cells                                      | 54 | 0.458 | 0.610 | 0.234  | 281 | 284 | 210 | 264    |
| 86  | Naive CD4 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells | 54 | 0.481 | 0.821 | 1.145  | 349 | 350 | 28  | 269    |
| 87  | EM CD8 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.469 | 0.710 | 0.292  | 318 | 316 | 166 | 279.5  |
| 88  | let-7i                                                           | 62 | 0.543 | 0.564 | 0.090  | 277 | 263 | 310 | 281.75 |
| 89  | EM CD8 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.553 | 0.508 | 0.004  | 248 | 248 | 397 | 285.25 |
| 90  | IL12p70                                                          | 62 | 0.459 | 0.587 | 0.107  | 285 | 273 | 302 | 286.25 |
| 91  | Naive CD4 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.538 | 0.638 | -0.132 | 292 | 293 | 286 | 290.75 |
| 92  | CM CD4 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.473 | 0.741 | 0.246  | 328 | 328 | 194 | 294.5  |
| 93  | Free active TGF-β1                                               | 54 | 0.539 | 0.635 | -0.091 | 290 | 292 | 309 | 295.25 |
| 94  | sCD25                                                            | 62 | 0.458 | 0.580 | 0.035  | 282 | 268 | 364 | 299    |
| 95  | miR-20a                                                          | 62 | 0.459 | 0.583 | 0.039  | 284 | 270 | 361 | 299.75 |
| 96  | EM CD8 <sup>+</sup> cells                                        | 54 | 0.544 | 0.586 | 0.017  | 274 | 272 | 382 | 300.5  |
| 97  | CM CD8 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.512 | 0.889 | 0.463  | 374 | 371 | 84  | 300.75 |
| 98  | CM CD4 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells    | 54 | 0.483 | 0.827 | 0.317  | 354 | 351 | 147 | 301.5  |
| 99  | Classical monocytes                                              | 54 | 0.458 | 0.610 | 0.034  | 280 | 283 | 365 | 302    |
| 100 | CM CD4 <sup>+</sup> cells                                        | 54 | 0.536 | 0.660 | -0.089 | 300 | 299 | 312 | 302.75 |
| 101 | Naive CD4 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.535 | 0.672 | -0.107 | 303 | 304 | 303 | 303.25 |
| 102 | CM CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.540 | 0.620 | -0.045 | 286 | 289 | 354 | 303.75 |
| 103 | CD4 <sup>+</sup> Tregs                                           | 54 | 0.536 | 0.657 | -0.084 | 299 | 298 | 320 | 304    |
| 104 | CM CD8 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells    | 54 | 0.487 | 0.875 | 0.359  | 367 | 359 | 124 | 304.25 |
| 105 | IL-27                                                            | 62 | 0.468 | 0.672 | 0.110  | 313 | 305 | 300 | 307.75 |
| 106 | Naive CD4 <sup>+</sup> cells                                     | 54 | 0.532 | 0.698 | -0.109 | 312 | 311 | 301 | 309    |
| 107 | CM CD4 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.538 | 0.647 | -0.046 | 294 | 297 | 352 | 309.25 |
| 108 | Class-switched memory B-cells                                    | 54 | 0.467 | 0.682 | 0.074  | 305 | 308 | 326 | 311    |
| 109 | IL-10                                                            | 62 | 0.460 | 0.597 | 0.003  | 288 | 279 | 398 | 313.25 |
| 110 | miR-146a                                                         | 62 | 0.481 | 0.800 | 0.203  | 347 | 344 | 228 | 316.5  |
| 111 | Tumor size                                                       | 62 | 0.526 | 0.727 | -0.089 | 329 | 324 | 313 | 323.75 |
| 112 | miR-195                                                          | 62 | 0.486 | 0.855 | -0.212 | 362 | 357 | 222 | 325.75 |
| 113 | TEMRA CD4 <sup>+</sup> cells                                     | 54 | 0.494 | 0.952 | 0.334  | 389 | 389 | 137 | 326    |
| 114 | Naive CD8 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.499 | 1.000 | 0.398  | 401 | 401 | 105 | 327    |
| 115 | let-7e                                                           | 62 | 0.524 | 0.751 | -0.079 | 335 | 331 | 323 | 331    |
| 116 | Myeloid dendritic cells                                          | 54 | 0.472 | 0.734 | -0.050 | 326 | 327 | 350 | 332.25 |
| 117 | Naive CD8 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells | 54 | 0.503 | 0.972 | 0.312  | 393 | 394 | 154 | 333.5  |
| 118 | PD-L2                                                            | 62 | 0.528 | 0.711 | -0.031 | 324 | 317 | 370 | 333.75 |
| 119 | TIM-3                                                            | 62 | 0.503 | 0.972 | -0.312 | 395 | 393 | 153 | 334    |
| 120 | miR-181a                                                         | 62 | 0.488 | 0.877 | 0.188  | 372 | 361 | 242 | 336.75 |
| 121 | IL-6                                                             | 62 | 0.482 | 0.816 | 0.096  | 352 | 348 | 306 | 339.5  |
| 122 | EM CD4 <sup>+</sup> cells                                        | 54 | 0.475 | 0.761 | 0.026  | 333 | 333 | 377 | 344    |
| 123 | IGF-1                                                            | 62 | 0.519 | 0.807 | -0.034 | 348 | 346 | 367 | 352.25 |
| 124 | miR-125b                                                         | 62 | 0.512 | 0.877 | -0.093 | 371 | 360 | 308 | 352.5  |
| 125 | CRP                                                              | 62 | 0.511 | 0.883 | -0.125 | 376 | 368 | 293 | 353.25 |
| 126 | miR-18a                                                          | 62 | 0.480 | 0.794 | 0.000  | 346 | 343 | 402 | 359.25 |
| 127 | Intermediate monocytes                                           | 54 | 0.489 | 0.897 | -0.089 | 377 | 375 | 311 | 360    |

|                      |                                                                  |    |       |       |        |     |     |     |        |
|----------------------|------------------------------------------------------------------|----|-------|-------|--------|-----|-----|-----|--------|
| 128                  | miR-19b                                                          | 62 | 0.484 | 0.838 | -0.003 | 357 | 353 | 399 | 366.5  |
| 129                  | EM CD4 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.508 | 0.924 | -0.069 | 385 | 385 | 336 | 372.75 |
| 130                  | miR-223                                                          | 62 | 0.492 | 0.921 | 0.043  | 386 | 382 | 356 | 377.5  |
| 131                  | miR-424                                                          | 62 | 0.491 | 0.910 | 0.027  | 384 | 380 | 376 | 381    |
| 132                  | miR-155                                                          | 62 | 0.491 | 0.910 | -0.020 | 383 | 381 | 379 | 381.5  |
| 133                  | miR-17                                                           | 62 | 0.497 | 0.978 | -0.012 | 397 | 396 | 388 | 394.5  |
| 134                  | CD56 <sup>dim</sup> CD16 <sup>+</sup> NK-cells                   | 54 | 0.501 | 0.993 | -0.006 | 399 | 399 | 391 | 397    |
| LOW CD8 INFILTRATION |                                                                  |    |       |       |        |     |     |     |        |
| 1                    | EM CD4 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.745 | 0.006 | -1.361 | 8   | 9   | 21  | 11.5   |
| 2                    | CD4/CD8 ratio                                                    | 54 | 0.227 | 0.002 | 0.879  | 3   | 4   | 37  | 11.75  |
| 3                    | EM CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>-</sup> cells    | 54 | 0.748 | 0.005 | -1.195 | 7   | 8   | 27  | 12.25  |
| 4                    | CD4 <sup>+</sup> cells                                           | 54 | 0.178 | 0.000 | 0.656  | 1   | 2   | 56  | 15     |
| 5                    | CM CD8 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.258 | 0.006 | 0.893  | 9   | 10  | 36  | 16     |
| 6                    | Tregs                                                            | 54 | 0.248 | 0.005 | 0.741  | 6   | 6   | 48  | 16.5   |
| 7                    | CM CD8 <sup>+</sup> cells                                        | 54 | 0.268 | 0.009 | 0.843  | 11  | 15  | 40  | 19.25  |
| 8                    | CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>-</sup> cells       | 54 | 0.710 | 0.018 | -1.404 | 19  | 21  | 20  | 19.75  |
| 9                    | CD4 <sup>+</sup> CD57 <sup>+</sup> cells                         | 54 | 0.711 | 0.016 | -1.321 | 18  | 20  | 24  | 20     |
| 10                   | Monocytes                                                        | 54 | 0.728 | 0.009 | -0.663 | 12  | 16  | 53  | 23.25  |
| 11                   | TEMRA CD4 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.696 | 0.028 | -1.481 | 28  | 29  | 17  | 25.5   |
| 12                   | miR-195                                                          | 62 | 0.699 | 0.019 | -1.066 | 25  | 22  | 30  | 25.5   |
| 13                   | CM CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.296 | 0.020 | 0.801  | 21  | 23  | 41  | 26.5   |
| 14                   | TEMRA CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>-</sup> cells | 54 | 0.689 | 0.034 | -1.578 | 32  | 34  | 9   | 26.75  |
| 15                   | CM CD8 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.297 | 0.023 | 0.776  | 22  | 25  | 44  | 28.25  |
| 16                   | T-cell <i>P16<sup>INK4a</sup></i>                                | 42 | 0.690 | 0.086 | -1.508 | 31  | 66  | 13  | 35.25  |
| 17                   | MCP-1                                                            | 62 | 0.241 | 0.002 | 0.334  | 5   | 5   | 138 | 38.25  |
| 18                   | miR-126                                                          | 62 | 0.687 | 0.027 | -0.603 | 33  | 28  | 64  | 39.5   |
| 19                   | CD8 <sup>+</sup> CD57 <sup>+</sup> cells                         | 54 | 0.694 | 0.028 | -0.527 | 30  | 30  | 73  | 40.75  |
| 20                   | CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>-</sup> cells       | 54 | 0.685 | 0.036 | -0.596 | 36  | 36  | 65  | 43.25  |
| 21                   | TEMRA CD8 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.679 | 0.044 | -0.587 | 41  | 41  | 68  | 47.75  |
| 22                   | TEMRA CD8 <sup>+</sup> cells                                     | 54 | 0.679 | 0.044 | -0.461 | 40  | 40  | 86  | 51.5   |
| 23                   | CD8 <sup>+</sup> CD28 <sup>+</sup> cells                         | 54 | 0.299 | 0.023 | 0.327  | 23  | 26  | 141 | 53.25  |
| 24                   | Naive CD8 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.337 | 0.067 | 0.490  | 46  | 47  | 79  | 54.5   |
| 25                   | Naive CD8 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.338 | 0.068 | 0.499  | 47  | 48  | 77  | 54.75  |
| 26                   | TIM-3                                                            | 62 | 0.348 | 0.073 | 0.796  | 61  | 56  | 42  | 55     |
| 27                   | TEMRA CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>-</sup> cells | 54 | 0.657 | 0.077 | -0.637 | 52  | 57  | 60  | 55.25  |
| 28                   | Naive CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.338 | 0.069 | 0.504  | 49  | 49  | 76  | 55.75  |
| 29                   | Naive B-cells                                                    | 54 | 0.316 | 0.038 | 0.361  | 38  | 38  | 123 | 59.25  |
| 30                   | CD8 <sup>+</sup> cells                                           | 54 | 0.662 | 0.069 | -0.445 | 51  | 50  | 92  | 61     |
| 31                   | CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells       | 54 | 0.336 | 0.065 | 0.382  | 45  | 46  | 112 | 62     |
| 32                   | Naive CD4 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.642 | 0.111 | -0.909 | 68  | 78  | 35  | 62.25  |
| 33                   | Memory Tregs                                                     | 54 | 0.304 | 0.027 | 0.289  | 27  | 27  | 168 | 62.25  |
| 34                   | NK-like T-cells                                                  | 54 | 0.638 | 0.120 | -0.922 | 71  | 84  | 33  | 64.75  |
| 35                   | Naive CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>-</sup> cells | 54 | 0.629 | 0.147 | -2.077 | 80  | 96  | 7   | 65.75  |
| 36                   | Class-switched memory B-cells                                    | 54 | 0.657 | 0.077 | -0.382 | 53  | 58  | 110 | 68.5   |
| 37                   | Naive CD8 <sup>+</sup> cells                                     | 54 | 0.347 | 0.086 | 0.441  | 59  | 65  | 94  | 69.25  |

|    |                                                                  |    |       |       |        |     |     |     |        |
|----|------------------------------------------------------------------|----|-------|-------|--------|-----|-----|-----|--------|
| 38 | CD4 <sup>+</sup> CD28 <sup>+</sup> cells                         | 54 | 0.275 | 0.011 | 0.162  | 14  | 17  | 264 | 77.25  |
| 39 | CD8 <sup>+</sup> CD27 <sup>+</sup> cells                         | 54 | 0.347 | 0.086 | 0.321  | 58  | 64  | 143 | 80.75  |
| 40 | miR-20a                                                          | 62 | 0.654 | 0.070 | -0.307 | 57  | 53  | 157 | 81     |
| 41 | EM CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.631 | 0.142 | -0.522 | 79  | 94  | 74  | 81.5   |
| 42 | CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells       | 54 | 0.330 | 0.055 | 0.236  | 42  | 43  | 205 | 83     |
| 43 | miR-424                                                          | 62 | 0.369 | 0.122 | 0.377  | 78  | 86  | 116 | 89.5   |
| 44 | CD3 <sup>+</sup> cells                                           | 54 | 0.332 | 0.058 | 0.188  | 44  | 44  | 243 | 93.75  |
| 45 | CD4 <sup>+</sup> CD27 <sup>+</sup> cells                         | 54 | 0.338 | 0.069 | 0.206  | 50  | 52  | 225 | 94.25  |
| 46 | Tumor grade                                                      | 62 | 0.656 | 0.030 | -0.196 | 56  | 32  | 239 | 95.75  |
| 47 | Naive CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.374 | 0.160 | 0.361  | 90  | 100 | 122 | 100.5  |
| 48 | sCD27                                                            | 62 | 0.383 | 0.171 | 0.439  | 102 | 105 | 97  | 101.5  |
| 49 | TEMRA CD4 <sup>+</sup> cells                                     | 54 | 0.605 | 0.242 | -0.782 | 121 | 142 | 43  | 106.75 |
| 50 | G8 score                                                         | 27 | 0.302 | 0.096 | 0.088  | 26  | 71  | 315 | 109.5  |
| 51 | CM CD4 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.379 | 0.178 | 0.314  | 96  | 110 | 150 | 113    |
| 52 | Naive Tregs                                                      | 54 | 0.656 | 0.079 | -0.127 | 55  | 59  | 292 | 115.25 |
| 53 | Naive CD4 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.384 | 0.192 | 0.332  | 103 | 118 | 139 | 115.75 |
| 54 | Non-classical monocytes                                          | 54 | 0.379 | 0.178 | 0.300  | 97  | 111 | 160 | 116.25 |
| 55 | Lymph node involvement                                           | 62 | 0.595 | 0.197 | -0.592 | 145 | 122 | 67  | 119.75 |
| 56 | IL-8                                                             | 62 | 0.361 | 0.102 | 0.163  | 70  | 76  | 263 | 119.75 |
| 57 | CM CD4 <sup>+</sup> cells                                        | 54 | 0.386 | 0.205 | 0.314  | 106 | 126 | 151 | 122.25 |
| 58 | CD56 <sup>bright</sup> CD16 <sup>+</sup> NK-cells                | 54 | 0.396 | 0.243 | 0.397  | 124 | 143 | 106 | 124.25 |
| 59 | Naive CD4 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.386 | 0.205 | 0.308  | 107 | 127 | 156 | 124.25 |
| 60 | miR-125b                                                         | 62 | 0.615 | 0.174 | -0.269 | 105 | 107 | 183 | 125    |
| 61 | miR-223                                                          | 62 | 0.599 | 0.247 | -0.375 | 136 | 146 | 118 | 134    |
| 62 | NK-cells                                                         | 54 | 0.600 | 0.266 | -0.336 | 133 | 154 | 135 | 138.75 |
| 63 | IL-17A                                                           | 62 | 0.576 | 0.372 | -1.717 | 184 | 191 | 8   | 141.75 |
| 64 | Intermediate monocytes                                           | 54 | 0.395 | 0.242 | 0.256  | 120 | 141 | 188 | 142.25 |
| 65 | Naive CD4 <sup>+</sup> cells                                     | 54 | 0.397 | 0.250 | 0.290  | 129 | 148 | 167 | 143.25 |
| 66 | Age                                                              | 62 | 0.388 | 0.187 | 0.183  | 109 | 115 | 246 | 144.75 |
| 67 | EM CD8 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.586 | 0.338 | -0.439 | 163 | 179 | 95  | 150    |
| 68 | PD-1                                                             | 62 | 0.573 | 0.394 | -1.469 | 192 | 198 | 19  | 150.25 |
| 69 | CM CD4 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.397 | 0.250 | 0.240  | 127 | 147 | 201 | 150.5  |
| 70 | CM CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.397 | 0.247 | 0.237  | 128 | 145 | 203 | 151    |
| 71 | CTLA-4                                                           | 62 | 0.438 | 0.253 | 1.552  | 222 | 150 | 11  | 151.25 |
| 72 | Classical monocytes                                              | 54 | 0.629 | 0.149 | -0.061 | 81  | 97  | 347 | 151.5  |
| 73 | EM CD8 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.393 | 0.234 | 0.177  | 117 | 136 | 252 | 155.5  |
| 74 | miR-146a                                                         | 62 | 0.588 | 0.299 | -0.331 | 160 | 167 | 140 | 156.75 |
| 75 | Hematopoietic stem cells                                         | 54 | 0.601 | 0.257 | -0.229 | 131 | 152 | 213 | 156.75 |
| 76 | miR-19a                                                          | 62 | 0.406 | 0.270 | 0.246  | 149 | 155 | 195 | 162    |
| 77 | EM CD4 <sup>+</sup> cells                                        | 54 | 0.595 | 0.288 | -0.246 | 146 | 163 | 196 | 162.75 |
| 78 | IL-1 $\alpha$                                                    | 62 | 0.408 | 0.281 | 0.234  | 151 | 158 | 209 | 167.25 |
| 79 | PD-L1                                                            | 62 | 0.566 | 0.440 | -0.648 | 206 | 212 | 58  | 170.5  |
| 80 | Plasmacytoid dendritic cells                                     | 54 | 0.593 | 0.297 | -0.200 | 150 | 165 | 232 | 174.25 |
| 81 | sCD25                                                            | 62 | 0.428 | 0.402 | 0.296  | 196 | 200 | 162 | 188.5  |
| 82 | Tumor size                                                       | 62 | 0.425 | 0.371 | 0.249  | 186 | 190 | 192 | 188.5  |



|     |                                                                  |    |       |       |        |     |     |     |        |
|-----|------------------------------------------------------------------|----|-------|-------|--------|-----|-----|-----|--------|
| 83  | Naive CD8 <sup>+</sup> CD57 <sup>+</sup> cells                   | 54 | 0.563 | 0.481 | -0.442 | 217 | 241 | 93  | 192    |
| 84  | PD-L2                                                            | 62 | 0.417 | 0.334 | 0.137  | 173 | 177 | 282 | 201.25 |
| 85  | EM CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.426 | 0.406 | 0.200  | 189 | 201 | 231 | 202.5  |
| 86  | CD4 <sup>+</sup> Tregs                                           | 54 | 0.410 | 0.315 | 0.073  | 156 | 172 | 327 | 202.75 |
| 87  | TEMRA CD8 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.571 | 0.428 | -0.229 | 198 | 207 | 212 | 203.75 |
| 88  | miR-150                                                          | 62 | 0.569 | 0.416 | -0.217 | 199 | 205 | 220 | 205.75 |
| 89  | CM CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.582 | 0.339 | -0.114 | 175 | 180 | 297 | 206.75 |
| 90  | Non-switched memory B-cells                                      | 54 | 0.566 | 0.467 | -0.258 | 208 | 229 | 185 | 207.5  |
| 91  | Myeloid dendritic cells                                          | 54 | 0.585 | 0.339 | -0.086 | 168 | 181 | 317 | 208.5  |
| 92  | IL-6                                                             | 62 | 0.438 | 0.464 | 0.286  | 221 | 227 | 170 | 209.75 |
| 93  | let-7i                                                           | 62 | 0.411 | 0.296 | -0.036 | 157 | 164 | 363 | 210.25 |
| 94  | CD86                                                             | 62 | 0.567 | 0.439 | -0.205 | 204 | 210 | 226 | 211    |
| 95  | miR-18a                                                          | 62 | 0.573 | 0.394 | -0.146 | 193 | 199 | 272 | 214.25 |
| 96  | IL-17F                                                           | 62 | 0.469 | 0.443 | 1.513  | 317 | 215 | 12  | 215.25 |
| 97  | CRP                                                              | 62 | 0.439 | 0.478 | 0.276  | 227 | 235 | 177 | 216.5  |
| 98  | LAG-3                                                            | 62 | 0.577 | 0.367 | -0.073 | 182 | 188 | 329 | 220.25 |
| 99  | Free active TGF- $\beta$ 1                                       | 62 | 0.522 | 0.415 |        | 342 | 204 | 3   | 222.75 |
| 100 | miR-17                                                           | 62 | 0.560 | 0.479 | -0.175 | 230 | 236 | 253 | 237.25 |
| 101 | 4-1BB                                                            | 62 | 0.472 | 0.698 | -1.016 | 325 | 312 | 31  | 248.25 |
| 102 | miR-155                                                          | 62 | 0.546 | 0.595 | -0.271 | 270 | 278 | 181 | 249.75 |
| 103 | miR-92a                                                          | 62 | 0.438 | 0.469 | 0.079  | 225 | 231 | 324 | 251.25 |
| 104 | let-7e                                                           | 62 | 0.455 | 0.601 | 0.235  | 273 | 280 | 208 | 258.5  |
| 105 | CD56 <sup>dim</sup> CD16 <sup>+</sup> NK-cells                   | 54 | 0.564 | 0.479 | -0.030 | 216 | 239 | 371 | 260.5  |
| 106 | EM CD8 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.448 | 0.562 | 0.130  | 249 | 262 | 288 | 262    |
| 107 | CM CD4 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.537 | 0.685 | -0.278 | 297 | 309 | 174 | 269.25 |
| 108 | Naive CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.529 | 0.750 | -0.345 | 321 | 330 | 132 | 276    |
| 109 | miR-19b                                                          | 62 | 0.550 | 0.557 | -0.071 | 255 | 261 | 334 | 276.25 |
| 110 | EM CD8 <sup>+</sup> cells                                        | 54 | 0.441 | 0.515 | 0.006  | 234 | 250 | 394 | 278    |
| 111 | B-cells                                                          | 54 | 0.443 | 0.528 | 0.014  | 240 | 255 | 387 | 280.5  |
| 112 | EM CD4 <sup>+</sup> CD28 <sup>+</sup> cells                      | 54 | 0.547 | 0.606 | -0.083 | 262 | 281 | 321 | 281.5  |
| 113 | IL-27                                                            | 62 | 0.463 | 0.664 | 0.185  | 295 | 301 | 244 | 283.75 |
| 114 | IL-10                                                            | 62 | 0.531 | 0.717 | 0.249  | 315 | 322 | 193 | 286.25 |
| 115 | IP-10                                                            | 62 | 0.469 | 0.717 | 0.144  | 316 | 323 | 275 | 307.5  |
| 116 | TEMRA CD8 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.524 | 0.794 | -0.219 | 337 | 342 | 218 | 308.5  |
| 117 | IL12p70                                                          | 62 | 0.488 | 0.898 | 0.380  | 375 | 376 | 115 | 310.25 |
| 118 | CM CD8 <sup>+</sup> CD57 <sup>+</sup> cells                      | 54 | 0.474 | 0.779 | -0.180 | 332 | 336 | 249 | 312.25 |
| 119 | IFN- $\gamma$                                                    | 62 | 0.536 | 0.675 | -0.064 | 301 | 307 | 342 | 312.75 |
| 120 | miR-326                                                          | 62 | 0.505 | 0.948 | -0.335 | 390 | 388 | 136 | 326    |
| 121 | EM CD4 <sup>+</sup> CD27 <sup>+</sup> cells                      | 54 | 0.535 | 0.702 | -0.006 | 302 | 313 | 392 | 327.25 |
| 122 | TEMRA CD4 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.513 | 0.894 | -0.237 | 370 | 374 | 204 | 329.5  |
| 123 | miR-21                                                           | 62 | 0.530 | 0.729 | 0.045  | 320 | 326 | 355 | 330.25 |
| 124 | EM CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells    | 54 | 0.533 | 0.717 | 0.007  | 309 | 321 | 389 | 332    |
| 125 | IL-1 $\beta$                                                     | 62 | 0.533 | 0.705 | 0.006  | 311 | 314 | 393 | 332.25 |
| 126 | TEMRA CD4 <sup>+</sup> CD27 <sup>+</sup> cells                   | 54 | 0.526 | 0.779 | -0.072 | 331 | 337 | 331 | 332.5  |
| 127 | TNF- $\alpha$                                                    | 62 | 0.514 | 0.878 | 0.181  | 365 | 364 | 247 | 335.25 |

|     |                                                                  |    |       |       |        |     |     |     |        |
|-----|------------------------------------------------------------------|----|-------|-------|--------|-----|-----|-----|--------|
| 128 | miR-9                                                            | 62 | 0.484 | 0.829 | 0.141  | 356 | 352 | 277 | 335.25 |
| 129 | miR-181a                                                         | 62 | 0.493 | 0.936 | -0.235 | 387 | 386 | 206 | 341.5  |
| 130 | Gal-9                                                            | 62 | 0.501 | 0.994 | 0.223  | 400 | 400 | 217 | 354.25 |
| 131 | TEMRA CD4 <sup>+</sup> CD27 <sup>+</sup> CD28 <sup>+</sup> cells | 54 | 0.513 | 0.892 | -0.033 | 369 | 372 | 369 | 369.75 |
| 132 | IGF-1                                                            | 62 | 0.514 | 0.880 | -0.017 | 366 | 367 | 383 | 370.5  |
| 133 | TEMRA CD8 <sup>+</sup> CD28 <sup>+</sup> cells                   | 54 | 0.498 | 0.992 | -0.110 | 398 | 398 | 299 | 373.25 |
| 134 | CM CD8 <sup>+</sup> CD27 <sup>-</sup> CD28 <sup>-</sup> cells    | 54 | 0.505 | 0.961 | -0.006 | 391 | 391 | 395 | 392    |