**Correlations between GCF total amounts, saliva and serum biomarkers of Thalassemia major patients.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **GCF** | **Serum** | **Saliva** |
|  |  |  | **IL-10** | **IL-33** | **TNF-α** | **IL-10** | **IL-33** | **TNF-α** | **IL-10** | **IL-33** | **TNF-α** |
| **GCF** | **IL-10** | r |  | .417 | .459 | -.464 | .261 | -.088 | .329 | .355 | .258 |
|  | p |  | **.048\*** | **.024\*** | **.026\*** | .229 | .683 | .135 | .082 | .247 |
| **IL-33** | r | .417 |  | .690 | -.205 | -.297 | .068 | -.021 | .073 | -.081 |
|  | p | **.048\*** |  | **.000\*\*** | .336 | .169 | .745 | .925 | .722 | .713 |
| **TNF-α** | r | .459 | .690 |  | -.043 | -.248 | .029 | .025 | -.122 | .098 |
|  | p | **.024\*** | **.000\*\*** |  | .834 | .232 | .885 | .904 | .543 | .640 |
| **Serum** | **IL-10** | r | -.464 | -.205 | -.043 |  | -.303 | -.046 | -.255 | -.255 | -.279 |
|  | p | **.026\*** | .336 | .834 |  | .140 | .818 | .229 | .208 | .187 |
| **IL-33** | r | .261 | -.297 | -.248 | -.303 |  | .003 | -.115 | .018 | -.019 |
|  | p | .229 | .169 | .232 | .140 |  | .988 | .601 | .930 | .930 |
| **TNF-α** | r | -.088 | .068 | .029 | -.046 | .003 |  | .192 | -.023 | -.080 |
|  | p | .683 | .745 | .885 | .818 | .988 |  | .357 | .910 | .704 |
| **Saliva** | **IL-10** | r | .329 | -.021 | .025 | -.255 | -.115 | .192 |  | .469 | .403 |
|  | p | .135 | .925 | .904 | .229 | .601 | .357 |  | **.018\*** | .051 |
| **IL-33** | r | .355 | .073 | -.122 | -.255 | .018 | -.023 | .469 |  | .328 |
|  | p | .082 | .722 | .543 | .208 | .930 | .910 | **.018\*** |  | .109 |
| **TNF-α** | r | .258 | -.081 | .098 | -.279 | -.019 | -.080 | .403 | .328 |  |
|  | p | .247 | .713 | .640 | .187 | .930 | .704 | .051 | .109 |  |

Statistical significant differences are shown in bold face.

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**Correlations between GCF total amounts, saliva and serum biomarkers of systemically healthy individuals.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **GCF** | **Serum** | **Saliva** |
|  |  |  | **IL-10** | **IL-33** | **TNF-α** | **IL-10** | **IL-33** | **TNF-α** | **IL-10** | **IL-33** | **TNF-α** |
| **GCF** | **IL-10** | r |  | .635 | -.097 | .083 | -.071 | -.047 | .150 | -.068 | -.411 |
|  | p |  | **.001\*\*** | .643 | .692 | .747 | .832 | .494 | .771 | .057 |
| **IL-33** | r | .635 |  | .031 | .054 | .012 | -.127 | .211 | -.042 | -.506 |
|  | p | **.001\*\*** |  | .882 | .798 | .955 | .562 | .333 | .858 | **.016\*** |
| **TNF-α** | r | -.097 | .031 |  | -.206 | -.198 | .077 | -.461 | .187 | .439 |
|  | p | .643 | .882 |  | .292 | .343 | .722 | **.020\*** | .382 | **.032\*** |
| **Serum** | **IL-10** | r | .083 | .054 | -.206 |  | .257 | .291 | -.062 | .238 | .310 |
|  | p | .692 | .798 | .292 |  | .204 | .159 | .764 | .251 | .132 |
| **IL-33** | r | -.071 | .012 | -.198 | .257 |  | .129 | .308 | -.311 | -.036 |
|  | p | .747 | .955 | .343 | .204 |  | .549 | .152 | .159 | .875 |
| **TNF-α** | r | -.047 | -.127 | .077 | .291 | .129 |  | -.292 | .260 | .031 |
|  | p | .832 | .562 | .722 | .159 | .549 |  | .187 | .256 | .893 |
| **Saliva** | **IL-10** | r | .150 | .211 | -.461 | -.062 | .308 | -.292 |  | -.460 | -.419 |
|  | p | .494 | .333 | **.020\*** | .764 | .152 | .187 |  | **.024\*** | **.037\*** |
| **IL-33** | r | -.068 | -.042 | .187 | .238 | -.311 | .260 | -.460 |  | .502 |
|  | p | .771 | .858 | .382 | .251 | .159 | .256 | **.024\*** |  | **.015\*** |
| **TNF-α** | r | -.411 | -.506 | .439 | .310 | -.036 | .031 | -.419 | .502 |  |
|  | p | .057 | **.016\*** | **.032\*** | .132 | .875 | .893 | **.037\*** | **.015\*** |  |

Statistical significant differences are shown in bold face.

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**Correlations between GCF concentrations, saliva and serum biomarkers of Thalassemia major patients.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **GCF** | **Serum** | **Saliva** |
|  |  |  | **IL-10** | **IL-33** | **TNF-α** | **IL-10** | **IL-33** | **TNF-α** | **IL-10** | **IL-33** | **TNF-α** |
| **GCF** | **IL-10** | r |  | 0.596 | 0.543 | -0.094 | 0.110 | 0.166 | -0.008 | 0.166 | 0.149 |
|  | p |  | **0.003**\*\* | **0.009**\*\* | 0.676 | 0.634 | 0.449 | 0.975 | 0.449 | 0.531 |
| **IL-33** | r | 0.596 |  | 0.919 | 0.013 | -0.335 | 0.187 | 0.037 | 0.058 | 0.315 |
|  | p | **0.003**\*\* |  | **0.000**\*\* | 0.952 | 0.118 | 0.370 | 0.869 | 0.789 | 0.154 |
| **TNF-α** | r | 0.543 | 0.919 |  | 0.129 | -0.292 | 0.134 | -0.131 | -0.036 | 0.100 |
|  | p | **0.009**\*\* | **0.000**\*\* |  | 0.558 | 0.188 | 0.533 | 0.571 | 0.872 | 0.666 |
| **Serum** | **IL-10** | r | -0.094 | 0.013 | 0.129 |  | -0.303 | -0.046 | -0.255 | -0.255 | -0.279 |
|  | p | 0.676 | 0.952 | 0.558 |  | 0.140 | 0.818 | 0.229 | 0.208 | 0.187 |
| **IL-33** | r | 0.110 | -0.335 | -0.292 | -0.303 |  | 0.003 | -0.115 | 0.018 | -0.019 |
|  | p | 0.634 | 0.118 | 0.188 | 0.140 |  | 0.988 | 0.601 | 0.930 | 0.930 |
| **TNF-α** | r | 0.166 | 0.187 | 0.134 | -0.046 | 0.003 |  | 0.192 | -0.023 | -0.080 |
|  | p | 0.449 | 0.370 | 0.533 | 0.818 | 0.988 |  | 0.357 | 0.910 | 0.704 |
| **Saliva** | **IL-10** | r | -0.008 | 0.037 | -0.131 | -0.255 | -0.115 | 0.192 |  | 0.469 | 0.403 |
|  | p | 0.975 | 0.869 | 0.571 | 0.229 | 0.601 | 0.357 |  | **0.018**\* | 0.051 |
| **IL-33** | r | 0.166 | 0.058 | -0.036 | -0.255 | 0.018 | -0.023 | 0.469 |  | 0.328 |
|  | p | 0.449 | 0.789 | 0.872 | 0.208 | 0.930 | 0.910 | **0.018**\* |  | 0.109 |
| **TNF-α** | r | 0.149 | 0.315 | 0.100 | -0.279 | -0.019 | -0.080 | 0.403 | 0.328 |  |
|  | p | 0.531 | 0.154 | 0.666 | 0.187 | 0.930 | 0.704 | 0.051 | 0.109 |  |

Statistical significant differences are shown in bold face.

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**Correlations between GCF concentrations, saliva and serum biomarkers of systemically healthy individuals.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **GCF** | **Serum** | **Saliva** |
|  |  |  | **IL-10** | **IL-33** | **TNF-α** | **IL-10** | **IL-33** | **TNF-α** | **IL-10** | **IL-33** | **TNF-α** |
| **GCF** | **IL-10** | r |  | 0.950 | 0.822 | 0.236 | 0.329 | -0.136 | 0.015 | 0.404 | 0.230 |
|  | p |  | **0.000**\*\* | **0.000**\*\* | 0.235 | 0.116 | 0.527 | 0.945 | 0.056 | 0.290 |
| **IL-33** | r | 0.950 |  | 0.874 | 0.363 | 0.223 | 0.184 | -0.072 | 0.397 | 0.132 |
|  | p | **0.000**\*\* |  | **0.000**\*\* | 0.074 | 0.319 | 0.424 | 0.749 | 0.067 | 0.568 |
| **TNF-α** | r | 0.822 | 0.874 |  | -0.074 | 0.071 | -0.021 | -0.092 | 0.275 | 0.249 |
|  | p | **0.000**\*\* | **0.000**\*\* |  | 0.737 | 0.758 | 0.930 | 0.701 | 0.240 | 0.304 |
| **Serum** | **IL-10** | r | 0.236 | 0.363 | -0.074 |  | 0.257 | 0.291 | -0.062 | 0.238 | 0.310 |
|  | p | 0.235 | 0.074 | 0.737 |  | 0.204 | 0.159 | 0.764 | 0.251 | 0.132 |
| **IL-33** | r | 0.329 | 0.223 | 0.071 | 0.257 |  | 0.129 | 0.308 | -0.311 | -0.036 |
|  | p | 0.116 | 0.319 | 0.758 | 0.204 |  | 0.549 | 0.152 | 0.159 | 0.875 |
| **TNF-α** | r | -0.136 | 0.184 | -0.021 | 0.291 | 0.129 |  | -0.292 | 0.260 | 0.031 |
|  | p | 0.527 | 0.424 | 0.930 | 0.159 | 0.549 |  | 0.187 | 0.256 | 0.893 |
| **Saliva** | **IL-10** | r | 0.015 | -0.072 | -0.092 | -0.062 | 0.308 | -0.292 |  | -0.460 | -0.419 |
|  | p | 0.945 | 0.749 | 0.701 | 0.764 | 0.152 | 0.187 |  | **0.024**\* | **0.037**\* |
| **IL-33** | r | 0.404 | 0.397 | 0.275 | 0.238 | -0.311 | 0.260 | -0.460 |  | 0.502 |
|  | p | 0.056 | 0.067 | 0.240 | 0.251 | 0.159 | 0.256 | **0.024**\* |  | **0.015**\* |
| **TNF-α** | r | 0.230 | 0.132 | 0.249 | 0.310 | -0.036 | 0.031 | -0.419 | 0.502 |  |
|  | p | 0.290 | 0.568 | 0.304 | 0.132 | 0.875 | 0.893 | **0.037**\* | **0.015**\* |  |

Statistical significant differences are shown in bold face.

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).