## YingDamAge Model 1

|  | Estimate | Standard Error | t value | Pr(>|t|) |  |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | -4.685 | 1.475 | -3.176 | 0.0021 | \*\* |
| group\_factorDoubly Exposed | 6.375 | 1.811 | 3.519 | 0.0007 | \*\*\* |
| group\_factorSingly Exposed | 3.601 | 1.796 | 2.005 | 0.0481 | \* |
| bio\_sexMale | 2.743 | 1.471 | 1.865 | 0.0656 | . |
| PC1 | 0.289 | 0.072 | 4.037 | 0.0001 | \*\*\* |
| *Signif. codes: 0 <= '\*\*\*' < 0.001 < '\*\*' < 0.01 < '\*' < 0.05* | | | | | |
|  | | | | | |
| Residual standard error: 7.004 on 86 degrees of freedom | | | | | |
| Multiple R-squared: 0.2706, Adjusted R-squared: 0.2367 | | | | | |
| F-statistic: 7.975 on 86 and 4 DF, p-value: 0.0000 | | | | | |

## YingDamAge Model 2

|  | Estimate | Standard Error | t value | Pr(>|t|) |  |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | -4.716 | 1.966 | -2.399 | 0.0186 | \* |
| ace\_total | 0.008 | 0.328 | 0.024 | 0.9807 |  |
| group\_factorDoubly Exposed | 6.349 | 2.123 | 2.990 | 0.0036 | \*\* |
| group\_factorSingly Exposed | 3.586 | 1.909 | 1.879 | 0.0637 | . |
| bio\_sexMale | 2.744 | 1.480 | 1.854 | 0.0672 | . |
| PC1 | 0.289 | 0.072 | 4.013 | 0.0001 | \*\*\* |
| *Signif. codes: 0 <= '\*\*\*' < 0.001 < '\*\*' < 0.01 < '\*' < 0.05* | | | | | |
|  | | | | | |
| Residual standard error: 7.045 on 85 degrees of freedom | | | | | |
| Multiple R-squared: 0.2706, Adjusted R-squared: 0.2277 | | | | | |
| F-statistic: 6.306 on 85 and 5 DF, p-value: 0.0001 | | | | | |

## YingAdaptAge Model 1

|  | Estimate | Standard Error | t value | Pr(>|t|) |  |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | 6.042 | 1.512 | 3.995 | 0.0001 | \*\*\* |
| group\_factorDoubly Exposed | -7.725 | 1.857 | -4.159 | 0.0001 | \*\*\* |
| group\_factorSingly Exposed | -6.482 | 1.841 | -3.521 | 0.0007 | \*\*\* |
| bio\_sexMale | -2.602 | 1.508 | -1.725 | 0.0881 | . |
| PC1 | 0.032 | 0.073 | 0.435 | 0.6650 |  |
| *Signif. codes: 0 <= '\*\*\*' < 0.001 < '\*\*' < 0.01 < '\*' < 0.05* | | | | | |
|  | | | | | |
| Residual standard error: 7.181 on 86 degrees of freedom | | | | | |
| Multiple R-squared: 0.2123, Adjusted R-squared: 0.1756 | | | | | |
| F-statistic: 5.793 on 86 and 4 DF, p-value: 0.0004 | | | | | |

## YingAdaptAge Model 2

|  | Estimate | Standard Error | t value | Pr(>|t|) |  |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | 4.018 | 1.988 | 2.021 | 0.0464 | \* |
| ace\_total | 0.515 | 0.332 | 1.552 | 0.1243 |  |
| group\_factorDoubly Exposed | -9.436 | 2.147 | -4.395 | 0.0000 | \*\*\* |
| group\_factorSingly Exposed | -7.450 | 1.930 | -3.861 | 0.0002 | \*\*\* |
| bio\_sexMale | -2.536 | 1.497 | -1.694 | 0.0939 | . |
| PC1 | 0.035 | 0.073 | 0.482 | 0.6308 |  |
| *Signif. codes: 0 <= '\*\*\*' < 0.001 < '\*\*' < 0.01 < '\*' < 0.05* | | | | | |
|  | | | | | |
| Residual standard error: 7.123 on 85 degrees of freedom | | | | | |
| Multiple R-squared: 0.234, Adjusted R-squared: 0.1889 | | | | | |
| F-statistic: 5.192 on 85 and 5 DF, p-value: 0.0003 | | | | | |

## DunedinPACE Model 1

|  | Estimate | Standard Error | t value | Pr(>|t|) |  |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | -0.933 | 0.558 | -1.673 | 0.0979 | . |
| group\_factorDoubly Exposed | 1.448 | 0.685 | 2.114 | 0.0374 | \* |
| group\_factorSingly Exposed | 0.313 | 0.679 | 0.461 | 0.6461 |  |
| bio\_sexMale | 0.706 | 0.556 | 1.269 | 0.2077 |  |
| PC1 | 0.150 | 0.027 | 5.561 | 0.0000 | \*\*\* |
| *Signif. codes: 0 <= '\*\*\*' < 0.001 < '\*\*' < 0.01 < '\*' < 0.05* | | | | | |
|  | | | | | |
| Residual standard error: 2.648 on 86 degrees of freedom | | | | | |
| Multiple R-squared: 0.2995, Adjusted R-squared: 0.2669 | | | | | |
| F-statistic: 9.191 on 86 and 4 DF, p-value: 0.0000 | | | | | |

## GrimAge Model 1

|  | Estimate | Standard Error | t value | Pr(>|t|) |  |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | 0.003 | 0.016 | 0.194 | 0.8463 |  |
| group\_factorDoubly Exposed | 0.048 | 0.020 | 2.369 | 0.0201 | \* |
| group\_factorSingly Exposed | -0.020 | 0.020 | -0.985 | 0.3275 |  |
| bio\_sexMale | -0.025 | 0.016 | -1.511 | 0.1345 |  |
| PC1 | 0.003 | 0.001 | 4.326 | 0.0000 | \*\*\* |
| *Signif. codes: 0 <= '\*\*\*' < 0.001 < '\*\*' < 0.01 < '\*' < 0.05* | | | | | |
|  | | | | | |
| Residual standard error: 0.07778 on 86 degrees of freedom | | | | | |
| Multiple R-squared: 0.2545, Adjusted R-squared: 0.2199 | | | | | |
| F-statistic: 7.341 on 86 and 4 DF, p-value: 0.0000 | | | | | |

## DunedinPACE Model 2

|  | Estimate | Standard Error | t value | Pr(>|t|) |  |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | -1.546 | 0.736 | -2.099 | 0.0387 | \* |
| ace\_total | 0.156 | 0.123 | 1.268 | 0.2081 |  |
| group\_factorDoubly Exposed | 0.930 | 0.795 | 1.170 | 0.2454 |  |
| group\_factorSingly Exposed | 0.020 | 0.715 | 0.028 | 0.9778 |  |
| bio\_sexMale | 0.726 | 0.554 | 1.310 | 0.1938 |  |
| PC1 | 0.151 | 0.027 | 5.614 | 0.0000 | \*\*\* |
| *Signif. codes: 0 <= '\*\*\*' < 0.001 < '\*\*' < 0.01 < '\*' < 0.05* | | | | | |
|  | | | | | |
| Residual standard error: 2.639 on 85 degrees of freedom | | | | | |
| Multiple R-squared: 0.3125, Adjusted R-squared: 0.2721 | | | | | |
| F-statistic: 7.727 on 85 and 5 DF, p-value: 0.0000 | | | | | |

## GrimAge Model 2

|  | Estimate | Standard Error | t value | Pr(>|t|) |  |
| --- | --- | --- | --- | --- | --- |
| (Intercept) | 0.001 | 0.022 | 0.045 | 0.9641 |  |
| ace\_total | 0.001 | 0.004 | 0.154 | 0.8783 |  |
| group\_factorDoubly Exposed | 0.046 | 0.024 | 1.943 | 0.0554 | . |
| group\_factorSingly Exposed | -0.021 | 0.021 | -0.976 | 0.3317 |  |
| bio\_sexMale | -0.025 | 0.016 | -1.497 | 0.1380 |  |
| PC1 | 0.003 | 0.001 | 4.304 | 0.0000 | \*\*\* |
| *Signif. codes: 0 <= '\*\*\*' < 0.001 < '\*\*' < 0.01 < '\*' < 0.05* | | | | | |
|  | | | | | |
| Residual standard error: 0.07823 on 85 degrees of freedom | | | | | |
| Multiple R-squared: 0.2547, Adjusted R-squared: 0.2109 | | | | | |
| F-statistic: 5.811 on 85 and 5 DF, p-value: 0.0001 | | | | | |