Model fit of Stat1, Stat3, and Stat3-interacting genes

```r
summary(glm.fit[["Stat1"]])
```

```
##
## Call:
## lm(formula = x ~ age + geno + age * geno)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.14736 -0.06115 -0.01124  0.02899  0.37027
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    3.97721    0.04595  86.553   <2e-16 ***
## age4m          0.06023    0.05731   1.051   0.2982
## age5m          0.13766    0.05407   2.546   0.0140 *
## age6m          0.15737    0.06016   2.616   0.0117 *
## genoAPP        0.02250    0.06498   0.346   0.7306
## age4m:genoAPP  0.14950    0.08665   1.725   0.0905 .
## age5m:genoAPP  0.02735    0.07804   0.350   0.7275
## age6m:genoAPP -0.03031    0.08856  -0.342   0.7335
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1027 on 51 degrees of freedom
## Multiple R-squared:   0.34,  Adjusted R-squared:  0.2494
## F-statistic: 3.753 on 7 and 51 DF,  p-value: 0.002366
```

```r
summary(glm.fit[["Stat3"]])
```

```
##
## Call:
## lm(formula = x ~ age + geno + age * geno)
##
## Residuals:
##       Min        1Q    Median        3Q       Max
## -0.110894 -0.051806  0.007573  0.040481  0.137646
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    5.431993   0.028738 189.016   <2e-16 ***
## age4m          0.050087   0.035843   1.397   0.1683
## age5m         -0.017509   0.033816  -0.518   0.6069
## age6m         -0.072281   0.037627  -1.921   0.0603 .
## genoAPP        0.005949   0.040642   0.146   0.8842
## age4m:genoAPP -0.002873   0.054189  -0.053   0.9579
## age5m:genoAPP  0.006968   0.048810   0.143   0.8870
## age6m:genoAPP  0.137732   0.055386   2.487   0.0162 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
## Residual standard error: 0.06426 on 51 degrees of freedom
## Multiple R-squared:  0.3249, Adjusted R-squared:  0.2323
## F-statistic: 3.507 on 7 and 51 DF,  p-value: 0.003806
```

```
summary(glm.fit[["Ep300"]])
```

```
##
## Call:
## lm(formula = x ~ age + geno + age * geno)
##
## Residuals:
##       Min        1Q    Median        3Q       Max
## -0.170782 -0.051243 -0.006149  0.034708  0.203671
##
## Coefficients:
##                Estimate Std. Error t value Pr(>|t|)
## (Intercept)    5.157270   0.033745 152.831  < 2e-16 ***
## age4m         -0.022421   0.042087  -0.533 0.596529
## age5m         -0.153829   0.039708  -3.874 0.000307 ***
## age6m         -0.216188   0.044182  -4.893 1.04e-05 ***
## genoAPP       -0.008755   0.047723  -0.183 0.855170
## age4m:genoAPP -0.064503   0.063630  -1.014 0.315501
## age5m:genoAPP  0.042047   0.057313   0.734 0.466532
## age6m:genoAPP  0.155914   0.065035   2.397 0.020213 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.07546 on 51 degrees of freedom
## Multiple R-squared:  0.497,  Adjusted R-squared:  0.4279
## F-statistic: 7.197 on 7 and 51 DF,  p-value: 5.497e-06
```

```
summary(glm.fit[["Ndufa13"]])
```

```
##
## Call:
## lm(formula = x ~ age + geno + age * geno)
##
## Residuals:
##       Min        1Q    Median        3Q       Max
## -0.226910 -0.065262  0.004675  0.059915  0.180218
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    7.03639    0.04168 168.800  < 2e-16 ***
## age4m          0.10491    0.05199   2.018 0.048869 *
## age5m          0.18860    0.04905   3.845 0.000336 ***
## age6m          0.22401    0.05458   4.104 0.000146 ***
## genoAPP        0.05032    0.05895   0.854 0.397331
## age4m:genoAPP -0.04242    0.07860  -0.540 0.591753
## age5m:genoAPP -0.08343    0.07080  -1.178 0.244120
## age6m:genoAPP -0.19397    0.08034  -2.414 0.019387 *
## ---
```

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.09321 on 51 degrees of freedom
## Multiple R-squared:  0.3595, Adjusted R-squared:  0.2715
## F-statistic: 4.088 on 7 and 51 DF,  p-value: 0.001249
```

```
summary(glm.fit[["Nfkb1"]])
```

```
##
## Call:
## lm(formula = x ~ age + geno + age * geno)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.18698 -0.06677  0.02348  0.05784  0.13665
##
## Coefficients:
##                Estimate Std. Error t value Pr(>|t|)
## (Intercept)    4.385635   0.038151 114.954  < 2e-16 ***
## age4m          0.048930   0.047583   1.028  0.30866
## age5m         -0.068552   0.044892  -1.527  0.13293
## age6m         -0.124485   0.049952  -2.492  0.01599 *
## genoAPP        0.028954   0.053954   0.537  0.59385
## age4m:genoAPP  0.010165   0.071938   0.141  0.88819
## age5m:genoAPP -0.004089   0.064796  -0.063  0.94993
## age6m:genoAPP  0.244696   0.073527   3.328  0.00163 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.08531 on 51 degrees of freedom
## Multiple R-squared:  0.4933, Adjusted R-squared:  0.4237
## F-statistic: 7.092 on 7 and 51 DF,  p-value: 6.507e-06
```

```
summary(glm.fit[["Ncoa1"]])
```

```
##
## Call:
## lm(formula = x ~ age + geno + age * geno)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.09081 -0.03532 -0.00525  0.03438  0.16587
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    6.03171    0.02472 244.003  < 2e-16 ***
## age4m         -0.02117    0.03083  -0.687   0.4954
## age5m         -0.12376    0.02909  -4.255 8.96e-05 ***
## age6m         -0.16401    0.03237  -5.067 5.66e-06 ***
## genoAPP       -0.01344    0.03496  -0.384   0.7023
## age4m:genoAPP -0.02127    0.04661  -0.456   0.6502
## age5m:genoAPP  0.07257    0.04198   1.728   0.0900 .
## age6m:genoAPP  0.11664    0.04764   2.448   0.0178 *
```

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.05528 on 51 degrees of freedom
## Multiple R-squared:  0.5111, Adjusted R-squared:  0.444
## F-statistic: 7.616 on 7 and 51 DF,  p-value: 2.838e-06
```

```
summary(glm.fit[["Mtor"]])
```

```
##
## Call:
## lm(formula = x ~ age + geno + age * geno)
##
## Residuals:
##       Min        1Q    Median        3Q       Max
## -0.139573 -0.042633 -0.003604  0.037342  0.186283
##
## Coefficients:
##                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)    5.707e+00  3.069e-02 185.957  < 2e-16 ***
## age4m          5.432e-02  3.828e-02   1.419  0.16194
## age5m         -5.746e-02  3.611e-02  -1.591  0.11775
## age6m         -1.082e-01  4.018e-02  -2.692  0.00959 **
## genoAPP        5.074e-02  4.340e-02   1.169  0.24786
## age4m:genoAPP -2.008e-02  5.787e-02  -0.347  0.73007
## age5m:genoAPP -8.812e-05  5.213e-02  -0.002  0.99866
## age6m:genoAPP  8.074e-02  5.915e-02   1.365  0.17823
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.06863 on 51 degrees of freedom
## Multiple R-squared:  0.457,  Adjusted R-squared:  0.3824
## F-statistic: 6.131 on 7 and 51 DF,  p-value: 3.186e-05
```