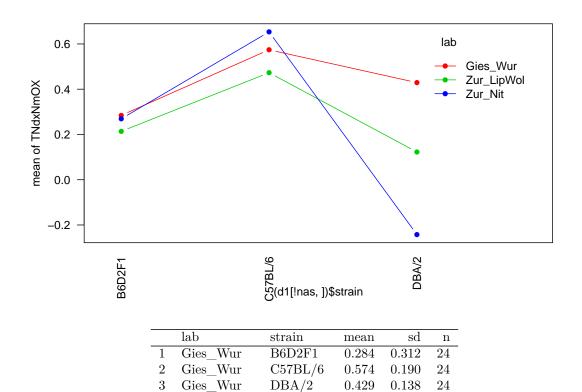
Test for any data set Tal Sarig , Iman Jaljule October 4, 2016

Error in source(wf, echo = F): object 'wf' not found

1 TNdxNmOX



B6D2F1

C57BL/6

0.214

0.473

0.396

0.192

24

24

 Zur_LipWol

Zur_LipWol

| 6 | Zur_LipWol | DBA/2 | 0.122 | 0.342 | 24 |
|---|---------------|---------|--------|-------|----|
| 7 | Zur_Nit | B6D2F1 | 0.269 | 0.350 | 24 |
| 8 | Zur_Nit | C57BL/6 | 0.653 | 0.159 | 24 |
| 9 | Zur_Nit | DBA/2 | -0.242 | 0.440 | 24 |

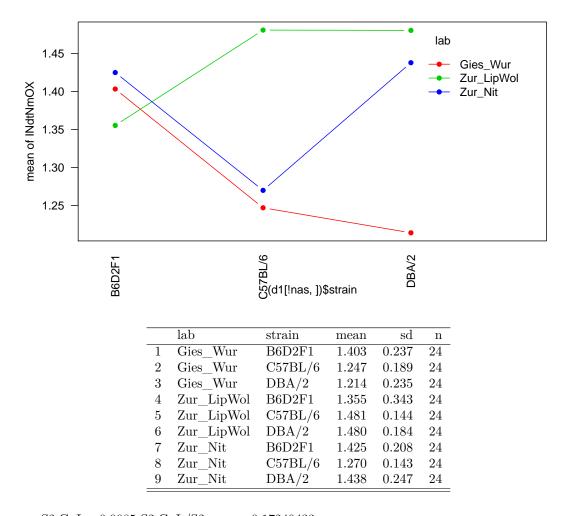
$S2.GxL = 0.03715 \ S2.GxL/S2.error = 0.4150853$

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|--------|-------|-------|-------|
| strain | 2 | 8.044 | 4.022 | 44.943 | 0.000 | 4.100 | 0.108 |
| lab | 2 | 1.639 | 0.819 | 9.156 | 0.000 | | |
| strain:lab | 4 | 4.247 | 1.062 | 11.865 | 0.000 | | |
| Residuals | 207 | 18.524 | 0.089 | | | | |

| - | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | 0.311 | 0.000 | 0.165 | 0.133 |
| 2 | DBA/2 | B6D2F1 | -0.153 | 0.002 | 0.165 | 0.407 |
| 3 | DBA/2 | C57BL/6 | -0.464 | 0.000 | 0.165 | 0.048 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | 0.290 | 0.067 | 46 | 0.000 | 4.620 | 0.355 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.145 | 0.058 | 46 | 0.043 | 4.538 | 0.630 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | -0.145 | 0.028 | 46 | 0.004 | 4.251 | 0.626 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 0.259 | 0.097 | 46 | 0.006 | 4.912 | 0.409 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | -0.091 | 0.137 | 46 | 0.398 | 5.314 | 0.767 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -0.350 | 0.077 | 46 | 0.000 | 4.717 | 0.275 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 0.384 | 0.074 | 46 | 0.000 | 4.689 | 0.237 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | -0.512 | 0.158 | 46 | 0.000 | 5.530 | 0.139 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | -0.896 | 0.109 | 46 | 0.000 | 5.036 | 0.027 |

2 INdtNmOX



 $S2.GxL = 0.0085\ S2.GxL/S2.error = 0.17240433$

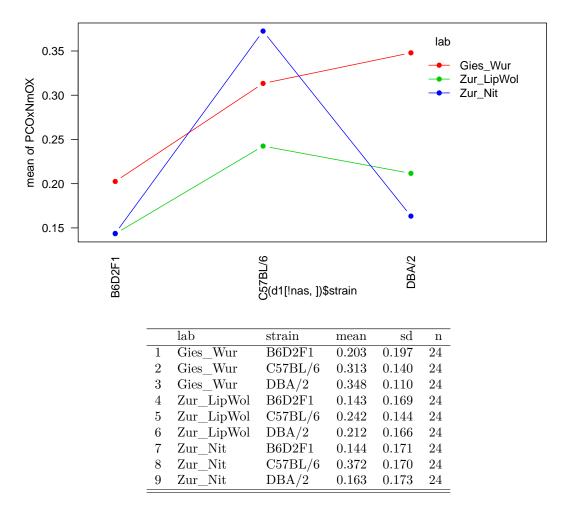
| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|-------|-------|-------|-------|
| strain | 2 | 0.147 | 0.074 | 1.495 | 0.227 | 0.291 | 0.762 |
| lab | 2 | 0.827 | 0.414 | 8.391 | 0.000 | | |
| strain:lab | 4 | 1.013 | 0.253 | 5.138 | 0.001 | | |
| Residuals | 207 | 10.201 | 0.049 | | | | |

| strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---------|---------|------|-------|---------------|-------|

| 1 | C57BL/6 | B6D2F1 | -0.062 | 0.096 | 0.084 | 0.501 |
|---|---------|---------|--------|-------|-------|-------|
| 2 | DBA/2 | B6D2F1 | -0.017 | 0.645 | 0.084 | 0.849 |
| 3 | DBA/2 | C57BL/6 | 0.045 | 0.227 | 0.084 | 0.621 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | -0.156 | 0.046 | 46 | 0.015 | 5.980 | 0.321 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | -0.189 | 0.056 | 46 | 0.008 | 6.440 | 0.243 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | -0.033 | 0.045 | 46 | 0.595 | 5.956 | 0.827 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 0.125 | 0.069 | 46 | 0.105 | 7.096 | 0.433 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 0.125 | 0.076 | 46 | 0.122 | 7.424 | 0.438 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -0.000 | 0.027 | 46 | 0.993 | 5.132 | 0.998 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | -0.155 | 0.032 | 46 | 0.004 | 5.338 | 0.316 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.013 | 0.052 | 46 | 0.846 | 6.272 | 0.932 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 0.168 | 0.041 | 46 | 0.006 | 5.732 | 0.286 |

3 PCOxNmOX



S2.GxL = 0.00309 S2.GxL/S2.error = 0.1177516

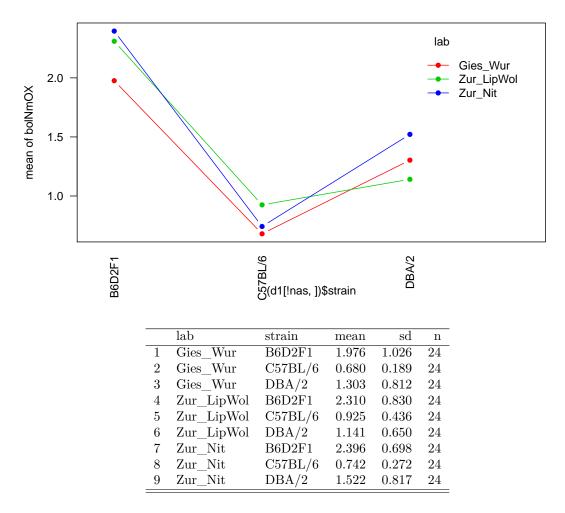
| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|--------|-------|-------|-------|
| strain | 2 | 0.771 | 0.386 | 14.703 | 0.000 | 3.843 | 0.117 |
| lab | 2 | 0.297 | 0.149 | 5.672 | 0.004 | | |
| strain:lab | 4 | 0.401 | 0.100 | 3.826 | 0.005 | | |
| Residuals | 207 | 5.428 | 0.026 | | | | |

| strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---------|---------|-----------------------|-------|---------------|-------|
| | | | | | |

| 1 | C57BL/6 | B6D2F1 | 0.146 | 0.000 | 0.053 | 0.050 |
|---|---------|---------|--------|-------|-------|-------|
| 2 | DBA/2 | B6D2F1 | 0.078 | 0.004 | 0.053 | 0.215 |
| 3 | DBA/2 | C57BL/6 | -0.068 | 0.012 | 0.053 | 0.264 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | 0.111 | 0.029 | 46 | 0.030 | 7.691 | 0.268 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.145 | 0.026 | 46 | 0.003 | 7.164 | 0.154 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 0.035 | 0.016 | 46 | 0.348 | 5.884 | 0.704 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 0.099 | 0.025 | 46 | 0.034 | 7.047 | 0.310 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 0.068 | 0.028 | 46 | 0.165 | 7.529 | 0.482 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -0.031 | 0.024 | 46 | 0.496 | 6.978 | 0.743 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 0.229 | 0.029 | 46 | 0.000 | 7.652 | 0.040 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.020 | 0.030 | 46 | 0.695 | 7.720 | 0.839 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | -0.209 | 0.029 | 46 | 0.000 | 7.688 | 0.056 |

4 bolNmOX



S2.GxL = 0.01044 S2.GxL/S2.error = 0.02195233

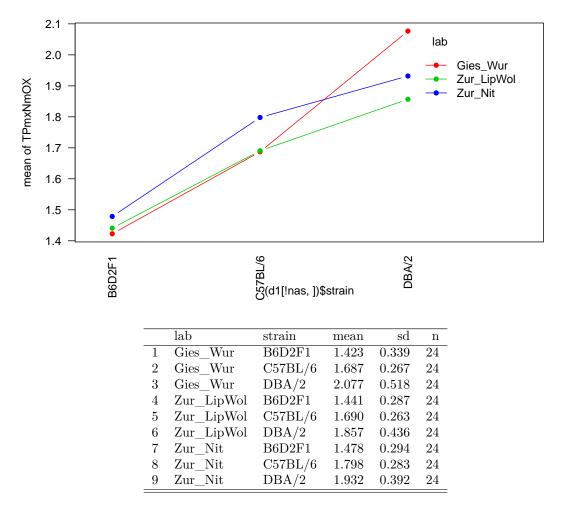
| - | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|------|--------|---------|--------|-------|--------|-------|
| strain | 2 | 76.741 | 38.371 | 80.700 | 0.000 | 52.853 | 0.001 |
| lab | 2 | 1.986 | 0.993 | 2.088 | 0.126 | | |
| strain:lab | 4 | 2.904 | 0.726 | 1.527 | 0.196 | | |
| Residuals | 207 | 98.423 | 0.475 | | | | |

| strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---------|---------|------|-------|---------------|-------|

| 1 | C57BL/6 | B6D2F1 | -1.445 | 0.000 | 0.142 | 0.001 |
|---|---------|---------|--------|-------|-------|-------|
| 2 | DBA/2 | B6D2F1 | -0.905 | 0.000 | 0.142 | 0.003 |
| 3 | DBA/2 | C57BL/6 | 0.540 | 0.000 | 0.142 | 0.019 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | -1.296 | 0.545 | 46 | 0.000 | 28.561 | 0.000 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | -0.673 | 0.857 | 46 | 0.015 | 38.744 | 0.033 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 0.623 | 0.348 | 46 | 0.001 | 19.550 | 0.011 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | -1.385 | 0.440 | 46 | 0.000 | 23.960 | 0.000 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | -1.168 | 0.556 | 46 | 0.000 | 29.011 | 0.000 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | 0.216 | 0.306 | 46 | 0.182 | 17.484 | 0.329 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | -1.654 | 0.280 | 46 | 0.000 | 16.198 | 0.000 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | -0.874 | 0.577 | 46 | 0.000 | 29.872 | 0.002 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 0.780 | 0.371 | 46 | 0.000 | 20.663 | 0.003 |

5 TPmxNmOX



S2.GxL = 0.00059 S2.GxL/S2.error = 0.00478283

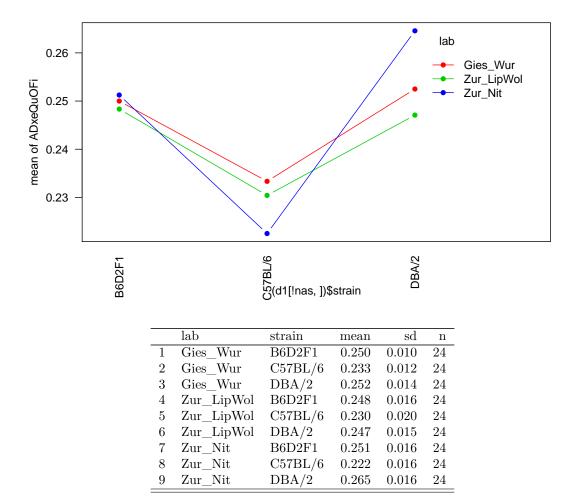
| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|--------|-------|--------|-------|
| strain | 2 | 9.310 | 4.655 | 37.509 | 0.000 | 33.647 | 0.003 |
| lab | 2 | 0.235 | 0.118 | 0.948 | 0.389 | | |
| strain:lab | 4 | 0.595 | 0.149 | 1.198 | 0.313 | | |
| Residuals | 207 | 25.689 | 0.124 | | | | |

| strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---------|---------|------|-------|---------------|-------|

| 1 | C57BL/6 | B6D2F1 | 0.278 | 0.000 | 0.062 | 0.011 |
|---|---------|---------|-------|-------|-------|-------|
| 2 | DBA/2 | B6D2F1 | 0.508 | 0.000 | 0.062 | 0.001 |
| 3 | DBA/2 | C57BL/6 | 0.230 | 0.000 | 0.062 | 0.021 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|-------|----------|--------|-------|--------|-------|
| 1 | $Gies_Wur$ | C57BL/6 | B6D2F1 | 0.265 | 0.093 | 46 | 0.004 | 48.195 | 0.007 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.654 | 0.192 | 46 | 0.000 | 49.919 | 0.000 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 0.390 | 0.170 | 46 | 0.002 | 49.995 | 0.003 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 0.250 | 0.076 | 46 | 0.003 | 46.160 | 0.006 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 0.416 | 0.136 | 46 | 0.000 | 49.855 | 0.001 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | 0.166 | 0.130 | 46 | 0.117 | 49.756 | 0.135 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 0.320 | 0.083 | 46 | 0.000 | 47.211 | 0.001 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.453 | 0.120 | 46 | 0.000 | 49.539 | 0.000 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 0.134 | 0.117 | 46 | 0.182 | 49.445 | 0.206 |

6 ADxeQuOFi



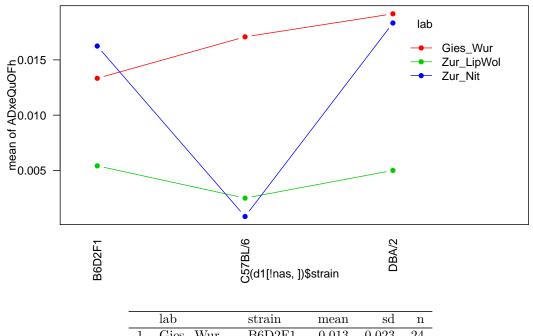
S2.GxL = 3e-05 S2.GxL/S2.error = 0.1225928

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|--------|-------|--------|-------|
| strain | 2 | 0.027 | 0.014 | 59.422 | 0.000 | 15.073 | 0.014 |
| lab | 2 | 0.001 | 0.000 | 1.515 | 0.222 | | |
| strain:lab | 4 | 0.005 | 0.001 | 5.156 | 0.001 | | |
| Residuals | 207 | 0.048 | 0.000 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | -0.021 | 0.000 | 0.005 | 0.014 |
| 2 | DBA/2 | B6D2F1 | 0.005 | 0.056 | 0.005 | 0.389 |
| 3 | DBA/2 | C57BL/6 | 0.026 | 0.000 | 0.005 | 0.007 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | -0.017 | 0.000 | 46 | 0.000 | 5.645 | 0.092 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.002 | 0.000 | 46 | 0.475 | 5.860 | 0.773 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 0.019 | 0.000 | 46 | 0.000 | 6.206 | 0.061 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | -0.018 | 0.000 | 46 | 0.001 | 8.597 | 0.084 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | -0.001 | 0.000 | 46 | 0.775 | 7.046 | 0.890 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | 0.017 | 0.000 | 46 | 0.002 | 8.376 | 0.103 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | -0.029 | 0.000 | 46 | 0.000 | 7.601 | 0.013 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.013 | 0.000 | 46 | 0.006 | 7.449 | 0.172 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 0.042 | 0.000 | 46 | 0.000 | 7.445 | 0.002 |

7 ADxeQuOFh



| | lab | strain | mean | sd | n |
|---|---------------|---------|-------|---------------------|----|
| 1 | Gies_Wur | B6D2F1 | 0.013 | 0.023 | 24 |
| 2 | $Gies_Wur$ | C57BL/6 | 0.017 | 0.022 | 24 |
| 3 | $Gies_Wur$ | DBA/2 | 0.019 | 0.023 | 24 |
| 4 | Zur_LipWol | B6D2F1 | 0.005 | 0.018 | 24 |
| 5 | Zur_LipWol | C57BL/6 | 0.002 | 0.023 | 24 |
| 6 | Zur_LipWol | DBA/2 | 0.005 | 0.022 | 24 |
| 7 | Zur_Nit | B6D2F1 | 0.016 | 0.021 | 24 |
| 8 | Zur_Nit | C57BL/6 | 0.001 | 0.018 | 24 |
| 9 | Zur_Nit | DBA/2 | 0.018 | 0.016 | 24 |

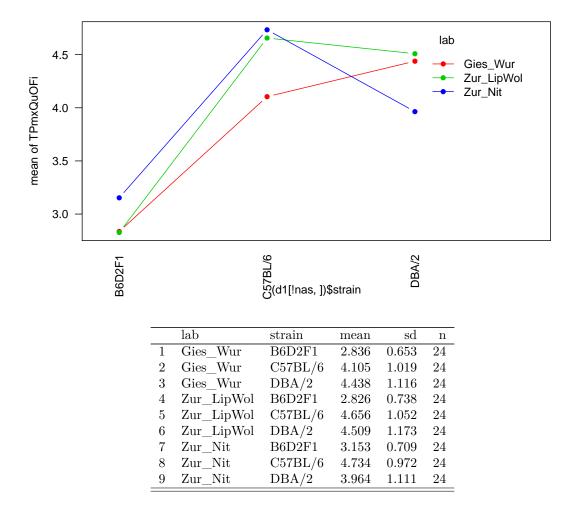
 $S2.GxL = 1e\text{-}05\ S2.GxL/S2.error = 0.02819373$

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|-------|-------|-------|-------|
| strain | 2 | 0.002 | 0.001 | 2.327 | 0.100 | 1.388 | 0.348 |
| lab | 2 | 0.005 | 0.003 | 6.309 | 0.002 | | |
| strain:lab | 4 | 0.003 | 0.001 | 1.677 | 0.157 | | |
| Residuals | 207 | 0.090 | 0.000 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | -0.005 | 0.163 | 0.004 | 0.340 |
| 2 | DBA/2 | B6D2F1 | 0.002 | 0.472 | 0.004 | 0.608 |
| 3 | DBA/2 | C57BL/6 | 0.007 | 0.035 | 0.004 | 0.177 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | 0.004 | 0.000 | 46 | 0.563 | 23.208 | 0.648 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.006 | 0.001 | 46 | 0.382 | 24.320 | 0.486 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 0.002 | 0.001 | 46 | 0.751 | 23.772 | 0.801 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | -0.003 | 0.000 | 46 | 0.624 | 20.008 | 0.709 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | -0.000 | 0.000 | 46 | 0.943 | 19.416 | 0.957 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | 0.002 | 0.001 | 46 | 0.703 | 23.747 | 0.763 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | -0.015 | 0.000 | 46 | 0.009 | 18.637 | 0.055 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.002 | 0.000 | 46 | 0.705 | 17.486 | 0.781 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 0.018 | 0.000 | 46 | 0.001 | 14.741 | 0.025 |

8 TPmxQuOFi



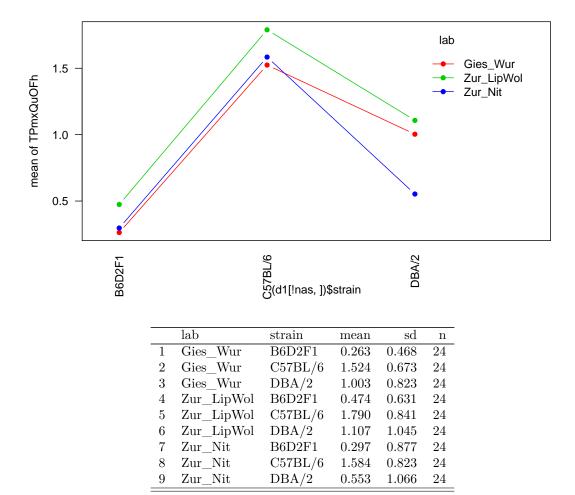
 $S2.GxL = 0.04106\ S2.GxL/S2.error = 0.04389764$

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|---------|---------|--------|-------|--------|-------|
| strain | 2 | 104.040 | 52.020 | 55.609 | 0.000 | 27.080 | 0.005 |
| lab | 2 | 1.647 | 0.823 | 0.880 | 0.416 | | |
| strain:lab | 4 | 9.879 | 2.470 | 2.640 | 0.035 | | |
| Residuals | 207 | 193.640 | 0.935 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | 1.560 | 0.000 | 0.231 | 0.003 |
| 2 | DBA/2 | B6D2F1 | 1.365 | 0.000 | 0.231 | 0.004 |
| 3 | DBA/2 | C57BL/6 | -0.195 | 0.229 | 0.231 | 0.447 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | 1.269 | 0.732 | 46 | 0.000 | 11.592 | 0.006 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 1.603 | 0.836 | 46 | 0.000 | 12.861 | 0.001 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 0.334 | 1.142 | 46 | 0.285 | 16.692 | 0.439 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 1.830 | 0.825 | 46 | 0.000 | 12.728 | 0.000 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 1.683 | 0.960 | 46 | 0.000 | 14.401 | 0.001 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -0.147 | 1.241 | 46 | 0.649 | 17.938 | 0.736 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 1.581 | 0.724 | 46 | 0.000 | 11.495 | 0.001 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.811 | 0.869 | 46 | 0.004 | 13.262 | 0.059 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | -0.770 | 1.090 | 46 | 0.014 | 16.040 | 0.083 |

9 TPmxQuOFh



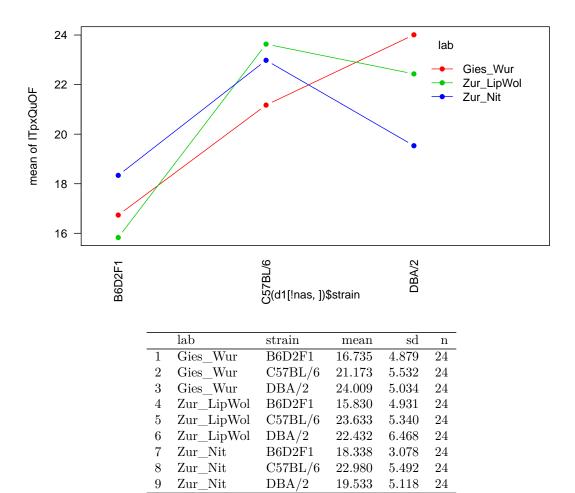
S2.GxL = 0 S2.GxL/S2.error = 1e-08

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|---------|---------|--------|-------|--------|-------|
| strain | 2 | 60.214 | 30.107 | 44.222 | 0.000 | 44.403 | 0.002 |
| lab | 2 | 3.583 | 1.791 | 2.631 | 0.074 | | |
| strain:lab | 4 | 2.136 | 0.534 | 0.784 | 0.537 | | |
| Residuals | 207 | 140.929 | 0.681 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | 1.288 | 0.000 | 0.137 | 0.001 |
| 2 | DBA/2 | B6D2F1 | 0.543 | 0.000 | 0.137 | 0.017 |
| 3 | DBA/2 | C57BL/6 | -0.745 | 0.000 | 0.137 | 0.006 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | 1.261 | 0.336 | 46 | 0.000 | 46.000 | 0.000 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.740 | 0.449 | 46 | 0.000 | 46.000 | 0.000 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | -0.521 | 0.565 | 46 | 0.021 | 46.000 | 0.021 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 1.315 | 0.552 | 46 | 0.000 | 46.000 | 0.000 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 0.633 | 0.745 | 46 | 0.014 | 46.000 | 0.014 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -0.682 | 0.899 | 46 | 0.016 | 46.000 | 0.016 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 1.288 | 0.723 | 46 | 0.000 | 46.000 | 0.000 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.256 | 0.952 | 46 | 0.368 | 46.000 | 0.368 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | -1.031 | 0.906 | 46 | 0.000 | 46.000 | 0.000 |

10 ITpxQuOF



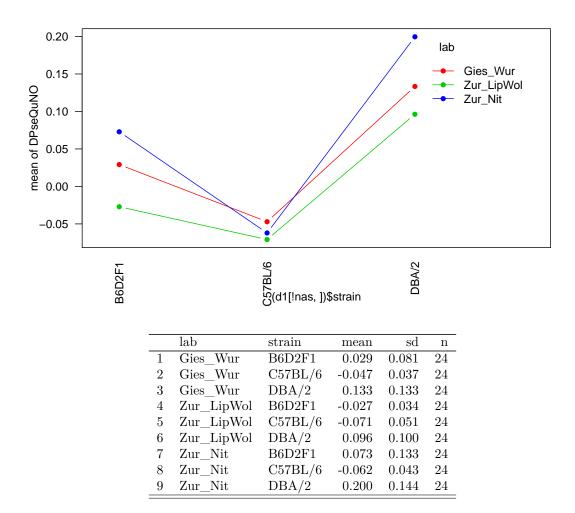
S2.GxL = 1.68442 S2.GxL/S2.error = 0.06310358

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|----------|---------|--------|-------|--------|-------|
| strain | 2 | 1374.637 | 687.318 | 25.749 | 0.000 | 10.240 | 0.027 |
| lab | 2 | 5.931 | 2.966 | 0.111 | 0.895 | | |
| strain:lab | 4 | 396.782 | 99.195 | 3.716 | 0.006 | | |
| Residuals | 207 | 5525.422 | 26.693 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| | | B6D2F1 | | | 1.365 | 0.015 |
| 2 | DBA/2 | B6D2F1 | 5.024 | 0.000 | 1.365 | 0.021 |
| 3 | DBA/2 | C57BL/6 | -0.604 | 0.484 | 1.365 | 0.681 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | 4.438 | 27.205 | 46 | 0.005 | 10.771 | 0.089 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 7.273 | 24.577 | 46 | 0.000 | 10.020 | 0.011 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 2.835 | 27.973 | 46 | 0.070 | 10.993 | 0.260 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 7.803 | 26.412 | 46 | 0.000 | 10.543 | 0.007 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 6.603 | 33.072 | 46 | 0.000 | 12.495 | 0.020 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -1.201 | 35.171 | 46 | 0.487 | 13.124 | 0.640 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 4.643 | 19.818 | 46 | 0.001 | 8.701 | 0.069 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 1.195 | 17.832 | 46 | 0.332 | 8.169 | 0.602 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | -3.447 | 28.176 | 46 | 0.029 | 11.052 | 0.177 |

11 DPseQuNO



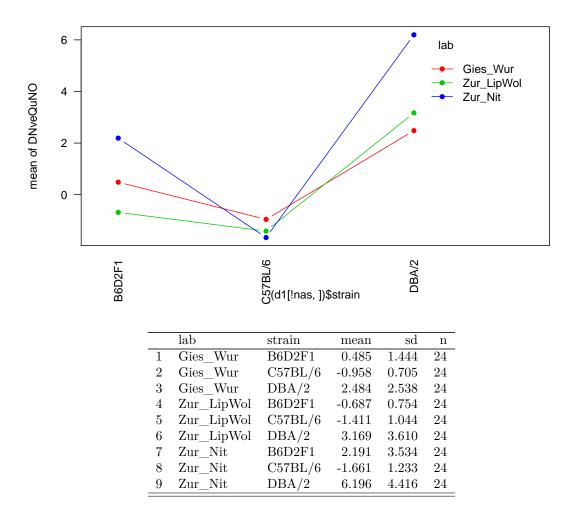
S2.GxL = 0.00045 S2.GxL/S2.error = 0.05063608

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|--------|-------|--------|-------|
| strain | 2 | 1.497 | 0.749 | 84.496 | 0.000 | 38.143 | 0.002 |
| lab | 2 | 0.181 | 0.090 | 10.189 | 0.000 | | |
| strain:lab | 4 | 0.079 | 0.020 | 2.215 | 0.069 | | |
| Residuals | 207 | 1.834 | 0.009 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | -0.085 | 0.000 | 0.023 | 0.022 |
| 2 | DBA/2 | B6D2F1 | 0.118 | 0.000 | 0.023 | 0.007 |
| 3 | DBA/2 | C57BL/6 | 0.203 | 0.000 | 0.023 | 0.001 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | -0.076 | 0.004 | 46 | 0.000 | 7.411 | 0.064 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.104 | 0.012 | 46 | 0.002 | 16.318 | 0.030 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 0.180 | 0.010 | 46 | 0.000 | 13.367 | 0.001 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | -0.044 | 0.002 | 46 | 0.001 | 5.493 | 0.231 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 0.123 | 0.006 | 46 | 0.000 | 8.991 | 0.009 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | 0.167 | 0.006 | 46 | 0.000 | 9.707 | 0.001 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | -0.135 | 0.010 | 46 | 0.000 | 13.595 | 0.006 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.127 | 0.019 | 46 | 0.003 | 24.349 | 0.018 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 0.262 | 0.011 | 46 | 0.000 | 15.329 | 0.000 |

12 DNveQuNO



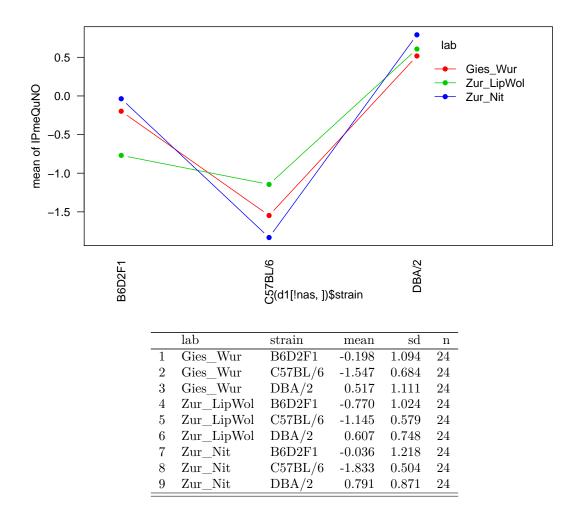
S2.GxL = 1.26686 S2.GxL/S2.error = 0.19928018

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|----------|---------|--------|-------|--------|-------|
| strain | 2 | 1028.164 | 514.082 | 80.866 | 0.000 | 13.984 | 0.016 |
| lab | 2 | 146.934 | 73.467 | 11.557 | 0.000 | | |
| strain:lab | 4 | 147.029 | 36.757 | 5.782 | 0.000 | | |
| Residuals | 207 | 1315.934 | 6.357 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | -2.006 | 0.000 | 1.011 | 0.118 |
| 2 | DBA/2 | B6D2F1 | 3.287 | 0.000 | 1.011 | 0.031 |
| 3 | DBA/2 | C57BL/6 | 5.293 | 0.000 | 1.011 | 0.006 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | -1.442 | 1.291 | 46 | 0.000 | 4.346 | 0.421 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 1.999 | 4.263 | 46 | 0.002 | 5.191 | 0.291 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 3.441 | 3.468 | 46 | 0.000 | 4.959 | 0.096 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | -0.724 | 0.829 | 46 | 0.008 | 4.221 | 0.676 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 3.856 | 6.799 | 46 | 0.000 | 5.963 | 0.071 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | 4.580 | 7.059 | 46 | 0.000 | 6.045 | 0.041 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | -3.852 | 7.005 | 46 | 0.000 | 6.028 | 0.072 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 4.005 | 15.992 | 46 | 0.001 | 9.096 | 0.072 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 7.857 | 10.509 | 46 | 0.000 | 7.169 | 0.004 |

13 IPmeQuNO



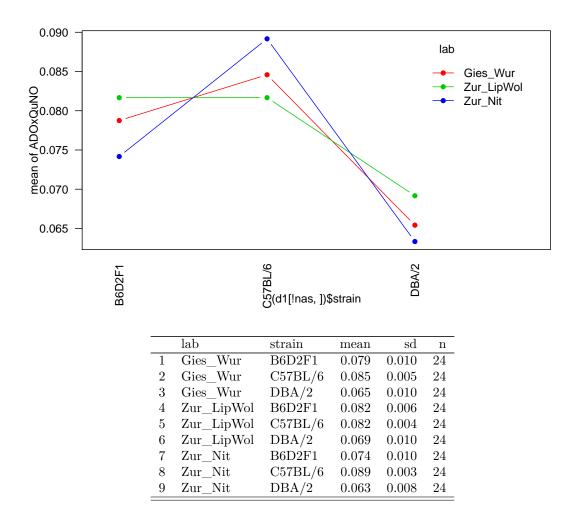
 $S2.GxL = 0.06177\ S2.GxL/S2.error = 0.07574815$

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|---------|---------|---------|-------|--------|-------|
| strain | 2 | 166.420 | 83.210 | 102.038 | 0.000 | 36.210 | 0.003 |
| lab | 2 | 0.218 | 0.109 | 0.134 | 0.875 | | |
| strain:lab | 4 | 13.570 | 3.392 | 4.160 | 0.003 | | |
| Residuals | 207 | 168.804 | 0.815 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | -1.174 | 0.000 | 0.253 | 0.010 |
| 2 | DBA/2 | B6D2F1 | 0.973 | 0.000 | 0.253 | 0.018 |
| 3 | DBA/2 | C57BL/6 | 2.147 | 0.000 | 0.253 | 0.001 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | -1.350 | 0.832 | 46 | 0.000 | 9.490 | 0.013 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.715 | 1.216 | 46 | 0.029 | 12.520 | 0.156 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 2.065 | 0.851 | 46 | 0.000 | 9.638 | 0.001 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | -0.375 | 0.692 | 46 | 0.125 | 8.444 | 0.402 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 1.377 | 0.804 | 46 | 0.000 | 9.280 | 0.011 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | 1.752 | 0.447 | 46 | 0.000 | 6.725 | 0.004 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | -1.796 | 0.869 | 46 | 0.000 | 9.770 | 0.002 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.828 | 1.121 | 46 | 0.009 | 11.756 | 0.102 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 2.624 | 0.506 | 46 | 0.000 | 7.127 | 0.000 |

14 ADOxQuNO



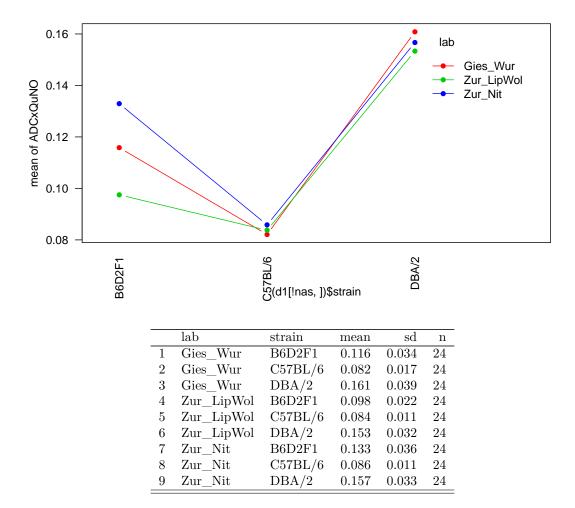
S2.GxL = 1e-05 S2.GxL/S2.error = 0.16596686

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|---------|-------|--------|-------|
| strain | 2 | 0.014 | 0.007 | 113.138 | 0.000 | 22.704 | 0.007 |
| lab | 2 | 0.000 | 0.000 | 1.167 | 0.313 | | |
| strain:lab | 4 | 0.002 | 0.000 | 6.892 | 0.000 | | |
| Residuals | 207 | 0.012 | 0.000 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | 0.007 | 0.000 | 0.003 | 0.073 |
| 2 | DBA/2 | B6D2F1 | -0.012 | 0.000 | 0.003 | 0.013 |
| 3 | DBA/2 | C57BL/6 | -0.019 | 0.000 | 0.003 | 0.003 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | 0.006 | 0.000 | 46 | 0.014 | 6.317 | 0.286 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | -0.013 | 0.000 | 46 | 0.000 | 7.796 | 0.036 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | -0.019 | 0.000 | 46 | 0.000 | 6.257 | 0.008 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 0.000 | 0.000 | 46 | 1.000 | 4.970 | 1.000 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | -0.012 | 0.000 | 46 | 0.000 | 6.547 | 0.045 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -0.012 | 0.000 | 46 | 0.000 | 6.016 | 0.045 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 0.015 | 0.000 | 46 | 0.000 | 6.060 | 0.023 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | -0.011 | 0.000 | 46 | 0.000 | 7.096 | 0.073 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | -0.026 | 0.000 | 46 | 0.000 | 5.173 | 0.003 |

15 ADCxQuNO



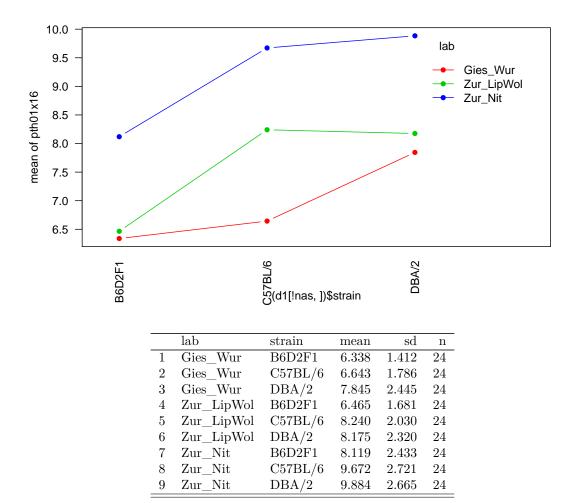
S2.GxL = 6e-05 S2.GxL/S2.error = 0.07869377

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|------|--------|---------|---------|-------|--------|-------|
| strain | 2 | 0.193 | 0.097 | 121.924 | 0.000 | 42.208 | 0.002 |
| lab | 2 | 0.007 | 0.003 | 4.253 | 0.015 | | |
| strain:lab | 4 | 0.009 | 0.002 | 2.889 | 0.023 | | |
| Residuals | 207 | 0.164 | 0.001 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | -0.032 | 0.000 | 0.008 | 0.017 |
| 2 | DBA/2 | B6D2F1 | 0.042 | 0.000 | 0.008 | 0.006 |
| 3 | DBA/2 | C57BL/6 | 0.073 | 0.000 | 0.008 | 0.001 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | -0.034 | 0.001 | 46 | 0.000 | 8.545 | 0.036 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.045 | 0.001 | 46 | 0.000 | 13.379 | 0.011 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 0.079 | 0.001 | 46 | 0.000 | 10.004 | 0.000 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | -0.014 | 0.000 | 46 | 0.009 | 5.772 | 0.306 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 0.056 | 0.001 | 46 | 0.000 | 8.959 | 0.003 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | 0.070 | 0.001 | 46 | 0.000 | 7.632 | 0.001 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | -0.047 | 0.001 | 46 | 0.000 | 8.560 | 0.008 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.024 | 0.001 | 46 | 0.022 | 12.263 | 0.138 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 0.071 | 0.001 | 46 | 0.000 | 7.819 | 0.001 |

16 pth01x16



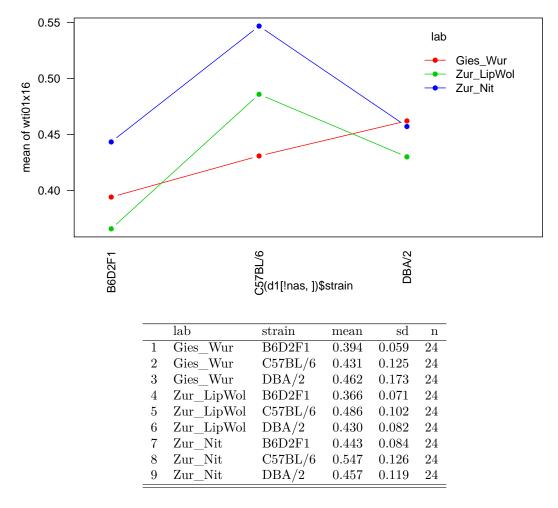
 $S2.GxL=0\ S2.GxL/S2.error=\ 2e\text{-}08$

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|------|----------|---------|--------|-------|--------|-------|
| strain | 2 | 106.225 | 53.112 | 10.884 | 0.000 | 10.906 | 0.024 |
| lab | 2 | 197.629 | 98.814 | 20.250 | 0.000 | | |
| strain:lab | 4 | 17.434 | 4.358 | 0.893 | 0.469 | | |
| Residuals | 207 | 1010.096 | 4.880 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|-------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | 1.211 | 0.001 | 0.368 | 0.030 |
| 2 | DBA/2 | B6D2F1 | 1.661 | 0.000 | 0.368 | 0.011 |
| 3 | DBA/2 | C57BL/6 | 0.450 | 0.223 | 0.368 | 0.289 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | 0.305 | 2.591 | 46 | 0.515 | 46.000 | 0.515 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 1.506 | 3.985 | 46 | 0.012 | 46.000 | 0.012 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 1.201 | 4.582 | 46 | 0.058 | 46.000 | 0.058 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 1.775 | 3.475 | 46 | 0.002 | 46.000 | 0.002 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 1.710 | 4.105 | 46 | 0.005 | 46.000 | 0.005 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -0.065 | 4.754 | 46 | 0.918 | 46.000 | 0.918 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 1.553 | 6.662 | 46 | 0.043 | 46.000 | 0.043 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 1.765 | 6.510 | 46 | 0.021 | 46.000 | 0.021 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 0.213 | 7.253 | 46 | 0.786 | 46.000 | 0.786 |

17 wti01x16



S2.GxL = 0.00062 S2.GxL/S2.error = 0.05169501

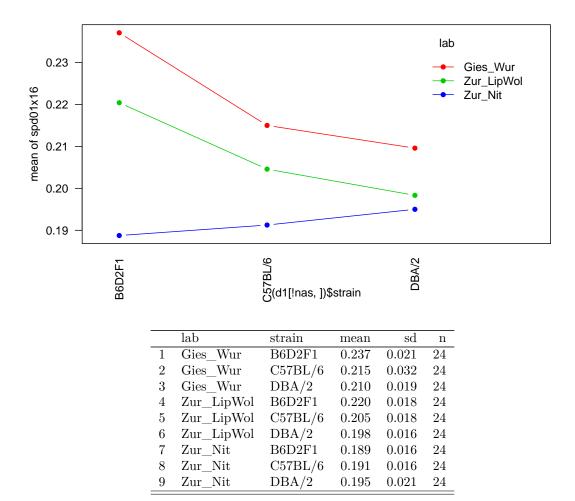
| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|--------|-------|-------|-------|
| strain | 2 | 0.272 | 0.136 | 11.281 | 0.000 | 5.035 | 0.081 |
| lab | 2 | 0.141 | 0.071 | 5.867 | 0.003 | | |
| strain:lab | 4 | 0.108 | 0.027 | 2.241 | 0.066 | | |
| Residuals | 207 | 2.493 | 0.012 | | | | |

| strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---------|---------|------|-------|---------------|-------|

| 1 | C57BL/6 | B6D2F1 | 0.087 | 0.000 | 0.027 | 0.034 |
|---|---------|---------|--------|-------|-------|-------|
| 2 | DBA/2 | B6D2F1 | 0.049 | 0.008 | 0.027 | 0.150 |
| 3 | DBA/2 | C57BL/6 | -0.038 | 0.039 | 0.027 | 0.237 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | 0.037 | 0.010 | 46 | 0.200 | 10.386 | 0.435 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.068 | 0.017 | 46 | 0.076 | 16.266 | 0.205 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 0.031 | 0.023 | 46 | 0.477 | 21.251 | 0.583 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 0.120 | 0.008 | 46 | 0.000 | 8.983 | 0.022 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 0.064 | 0.006 | 46 | 0.006 | 7.669 | 0.164 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -0.056 | 0.009 | 46 | 0.042 | 9.628 | 0.237 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 0.103 | 0.011 | 46 | 0.002 | 11.903 | 0.048 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.014 | 0.011 | 46 | 0.645 | 11.147 | 0.771 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | -0.090 | 0.015 | 46 | 0.015 | 14.775 | 0.093 |

$18 \quad spd01x16$



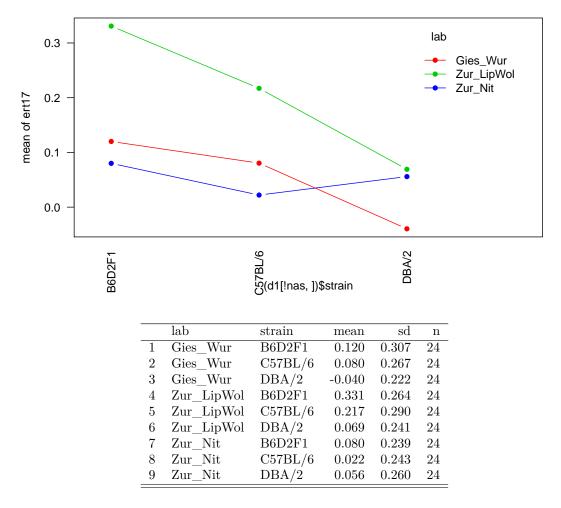
 $S2.GxL = 7e\text{-}05\ S2.GxL/S2.error = 0.16713917$

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|--------|-------|-------|-------|
| strain | 2 | 0.009 | 0.004 | 10.212 | 0.000 | 2.038 | 0.245 |
| lab | 2 | 0.030 | 0.015 | 36.175 | 0.000 | | |
| strain:lab | 4 | 0.008 | 0.002 | 5.011 | 0.001 | | |
| Residuals | 207 | 0.086 | 0.000 | | | | |

| | strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---|---------|---------|--------|-------|---------------|-------|
| 1 | C57BL/6 | B6D2F1 | -0.012 | 0.001 | 0.008 | 0.196 |
| 2 | DBA/2 | B6D2F1 | -0.014 | 0.000 | 0.008 | 0.131 |
| 3 | DBA/2 | C57BL/6 | -0.003 | 0.439 | 0.008 | 0.747 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | -0.022 | 0.001 | 46 | 0.007 | 8.189 | 0.157 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | -0.027 | 0.000 | 46 | 0.000 | 6.185 | 0.081 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | -0.005 | 0.001 | 46 | 0.481 | 7.912 | 0.710 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | -0.016 | 0.000 | 46 | 0.004 | 5.752 | 0.269 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | -0.022 | 0.000 | 46 | 0.000 | 5.503 | 0.140 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -0.006 | 0.000 | 46 | 0.213 | 5.515 | 0.644 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 0.002 | 0.000 | 46 | 0.596 | 5.348 | 0.851 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.006 | 0.000 | 46 | 0.258 | 5.871 | 0.648 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 0.004 | 0.000 | 46 | 0.496 | 5.871 | 0.783 |

19 ert17



S2.GxL = 0.00138 S2.GxL/S2.error = 0.02031705

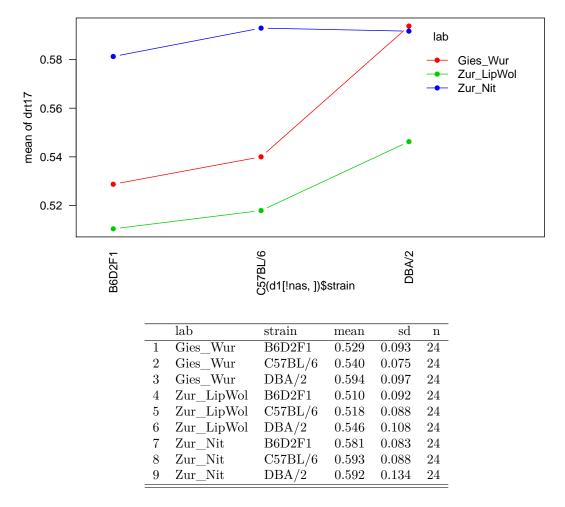
| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|-------|-------|-------|-------|
| strain | 2 | 0.794 | 0.397 | 5.848 | 0.003 | 3.931 | 0.114 |
| lab | 2 | 1.117 | 0.559 | 8.226 | 0.000 | | |
| strain:lab | 4 | 0.404 | 0.101 | 1.488 | 0.207 | | |
| Residuals | 207 | 14.058 | 0.068 | | | | |

| strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---------|---------|-----------------------|-------|---------------|-------|
| | | | | | |

| 1 | C57BL/6 | B6D2F1 | -0.070 | 0.106 | 0.053 | 0.255 |
|---|---------|---------|--------|-------|-------|-------|
| 2 | DBA/2 | B6D2F1 | -0.148 | 0.001 | 0.053 | 0.049 |
| 3 | DBA/2 | C57BL/6 | -0.078 | 0.074 | 0.053 | 0.215 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | -0.040 | 0.083 | 46 | 0.636 | 31.803 | 0.690 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | -0.160 | 0.072 | 46 | 0.045 | 28.525 | 0.099 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | -0.120 | 0.060 | 46 | 0.098 | 24.757 | 0.186 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | -0.114 | 0.077 | 46 | 0.162 | 30.022 | 0.244 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | -0.262 | 0.064 | 46 | 0.001 | 25.963 | 0.007 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | -0.148 | 0.071 | 46 | 0.061 | 28.285 | 0.124 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | -0.058 | 0.058 | 46 | 0.410 | 23.961 | 0.513 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | -0.024 | 0.062 | 46 | 0.739 | 25.454 | 0.789 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | 0.034 | 0.063 | 46 | 0.645 | 25.757 | 0.710 |

20 drt17



S2.GxL = 0 S2.GxL/S2.error = 0

| | Df | Sum Sq | Mean Sq | F.FLM | p.FLM | F.RLM | p.RLM |
|------------|-----|--------|---------|-------|-------|-------|-------|
| strain | 2 | 0.053 | 0.026 | 2.828 | 0.061 | 2.847 | 0.170 |
| lab | 2 | 0.147 | 0.073 | 7.839 | 0.001 | | |
| strain:lab | 4 | 0.024 | 0.006 | 0.645 | 0.631 | | |
| Residuals | 207 | 1.936 | 0.009 | | | | |

| strain1 | strain2 | diff | p.FLM | Std.Error.RLM | p.RLM |
|---------|---------|-----------------------|-------|---------------|-------|
| | | | | | |

| 1 | C57BL/6 | B6D2F1 | 0.010 | 0.530 | 0.016 | 0.562 |
|---|---------|---------|-------|-------|-------|-------|
| 2 | DBA/2 | B6D2F1 | 0.037 | 0.022 | 0.016 | 0.082 |
| 3 | DBA/2 | C57BL/6 | 0.027 | 0.096 | 0.016 | 0.169 |

| | lab | strain1 | strain2 | diff | s2pooled | df.FLM | p.FLM | df.RLM | p.RLM |
|---|---------------|---------|---------|--------|----------|--------|-------|--------|-------|
| 1 | Gies_Wur | C57BL/6 | B6D2F1 | 0.011 | 0.007 | 46 | 0.648 | 46.000 | 0.648 |
| 2 | $Gies_Wur$ | DBA/2 | B6D2F1 | 0.065 | 0.009 | 46 | 0.022 | 46.000 | 0.022 |
| 3 | $Gies_Wur$ | DBA/2 | C57BL/6 | 0.054 | 0.008 | 46 | 0.037 | 46.000 | 0.037 |
| 4 | Zur_LipWol | C57BL/6 | B6D2F1 | 0.008 | 0.008 | 46 | 0.774 | 46.000 | 0.774 |
| 5 | Zur_LipWol | DBA/2 | B6D2F1 | 0.036 | 0.010 | 46 | 0.222 | 46.000 | 0.222 |
| 6 | Zur_LipWol | DBA/2 | C57BL/6 | 0.028 | 0.010 | 46 | 0.324 | 46.000 | 0.324 |
| 7 | Zur_Nit | C57BL/6 | B6D2F1 | 0.012 | 0.007 | 46 | 0.639 | 46.000 | 0.639 |
| 8 | Zur_Nit | DBA/2 | B6D2F1 | 0.010 | 0.012 | 46 | 0.747 | 46.000 | 0.747 |
| 9 | Zur_Nit | DBA/2 | C57BL/6 | -0.001 | 0.013 | 46 | 0.970 | 46.000 | 0.970 |

```
## Error in eval(expr, envir, enclos): object 'file.name' not found
## Error in eval(expr, envir, enclos): object 'file.name' not found
## Error in eval(expr, envir, enclos): object 'file.name' not found
## Error in eval(expr, envir, enclos): object 'file.name' not found
## Error in eval(expr, envir, enclos): object 'file.name' not found
## Error in eval(expr, envir, enclos): object 'file.name' not found
```

Single lab analysis - power and FDP

```
Number of measures: 20 endpoints measured for 3 genotypes in 3 labs

Number of significant measures according to RLM: 33

Number of significant measures according to FLM: 46

Significant GxL variance according to Fixed model: 55 %
```

Standard analysis

| | No Difference between genotypes | Difference between genotypes | Total |
|--------------------------|---------------------------------|------------------------------|-------|
| Declared significant | 33 | 90 | 123 |
| Declared non-significant | 48 | 9 | 57 |
| Total | 81 | 99 | 180 |

```
Power - standard t-test: 90 / 99 = 0.9091

FDP - standard t-test: 0.2511

Type I error : 33 / 81 = 0.4074

Type II error : 9 / 99 = 0.0909
```

$G \times L$ - adjusted analysis

| | No Difference between genotypes | Difference between genotypes | Total |
|--------------------------|---------------------------------|------------------------------|-------|
| Declared significant | 5 | 69 | 74 |
| Declared non-significant | 76 | 30 | 106 |
| Total | 81 | 99 | 180 |

```
Power - GxL adjusted: 69 / 99 = 0.697

FDP - GxL adjusted: 0.0546

Type I error : 5 / 81 = 0.0617

Type II error : 30 / 99 = 0.303
```

Opposite significants Proportion : 1 / 60 = 0.0167Proportion of "opposite significant" out of measures in which genotype effect is significant according to FLM but not RLM : 1 / 13 = 0.0769Proportion of "opposite significant" out of measures in which genotype effect is significant according to RLM: 0 / 33 = 0

Single lab analysis using BH - power and FDP

Standard analysis

| | No Difference between genotypes | Difference between genotypes | Total |
|--------------------------|---------------------------------|------------------------------|-------|
| Declared significant | 33 | 90 | 123 |
| Declared non-significant | 48 | 9 | 57 |
| Total | 81 | 99 | 180 |

Power - standard t-test: 90 / 99 = 0.9091

FDP - standard t-test: 0.2431 Type I error : 33 / 81 = 0.4074 Type II error : 9 / 99 = 0.0909

$G \times L$ - adjusted analysis

| | No Difference between genotypes | Difference between genotypes | Total |
|--------------------------|---------------------------------|------------------------------|-------|
| Declared significant | 4 | 59 | 63 |
| Declared non-significant | 77 | 40 | 117 |
| Total | 81 | 99 | 180 |

Power - GxL adjusted: 59 / 99 = 0.596

FDP - GxL adjusted: 0.0472 Type I error : 4 / 81 = 0.0494 Type II error : 40 / 99 = 0.404

Opposite significants Proportion : 1/60 = 0.0167Proportion of "opposite significant" out of measures in which genotype effect is significant according to FLM but not RLM : 0/13 = 0Proportion of "opposite significant" out of measures in which genotype effect is significant according to RLM: 0/33 = 0

Error: FileNotFoundException (Java): File 'fdps.xlsx' could not be found - you
may specify to automatically create the file if not existing.
Error in writeWorksheet(fd, fdps, sheet = fileN): error in evaluating the argument
'object' in selecting a method for function 'writeWorksheet': Error: object 'fd'
not found
Error in saveWorkbook(fd): error in evaluating the argument 'object' in selecting
a method for function 'saveWorkbook': Error: object 'fd' not found

```
## Error: FileNotFoundException (Java): File 'TypeIerror.xlsx' could not be found
- you may specify to automatically create the file if not existing.
## Error in writeWorksheet(typeI, TypeI, sheet = fileN): error in evaluating the
argument 'object' in selecting a method for function 'writeWorksheet': Error: object
'typeI' not found
## Error in saveWorkbook(typeI): error in evaluating the argument 'object' in selecting
a method for function 'saveWorkbook': Error: object 'typeI' not found
## Error: FileNotFoundException (Java): File 'Power.xlsx' could not be found -
you may specify to automatically create the file if not existing.
## Error in writeWorksheet(power, Power, sheet = fileN): error in evaluating the
argument 'sheet' in selecting a method for function 'writeWorksheet': Error: object
'fileN' not found
## Error in (function (classes, fdef, mtable) : unable to find an inherited method
for function 'saveWorkbook' for signature '"function", "missing"'
```

Estimates Of standard deviations for each endpoint

| | S error | S lab | S interaction |
|-----------|---------|-------|---------------|
| TN 1N OV | | | |
| TNdxNmOX | 0.299 | 0.000 | 0.193 |
| INdtNmOX | 0.222 | 0.047 | 0.092 |
| PCOxNmOX | 0.162 | 0.026 | 0.056 |
| bolNmOX | 0.690 | 0.061 | 0.102 |
| TPmxNmOX | 0.352 | 0.000 | 0.024 |
| ADxeQuOFi | 0.015 | 0.000 | 0.005 |
| ADxeQuOFh | 0.021 | 0.005 | 0.004 |
| TPmxQuOFi | 0.967 | 0.000 | 0.203 |
| TPmxQuOFh | 0.823 | 0.124 | 0.000 |
| ITpxQuOF | 5.167 | 0.000 | 1.298 |
| DPseQuNO | 0.094 | 0.031 | 0.021 |
| DNveQuNO | 2.521 | 0.714 | 1.126 |
| IPmeQuNO | 0.903 | 0.000 | 0.249 |
| ADOxQuNO | 0.008 | 0.000 | 0.003 |
| ADCxQuNO | 0.028 | 0.004 | 0.008 |
| pth01x16 | 2.207 | 1.142 | 0.000 |
| wti01x16 | 0.110 | 0.025 | 0.025 |
| spd01x16 | 0.020 | 0.013 | 0.008 |
| ert17 | 0.261 | 0.080 | 0.037 |
| drt17 | 0.096 | 0.030 | 0.000 |