**Extended Data Table 4-22**. Coefficient of variation (CV) distributions for treated/manipulated standard housed (controls) and treated/manipulated environmental enriched (EE) rats by each individual trait. CV ratios were used to determine whether the distribution of variation differed by environmental complexity. Calculated EE to control ratios of *CV* = [(*CVEE)/(CVEE + CVcontrol*)]. CV ratios tested as a function of housing complexity against the theoretical mean of 0.5 by a one-sample t-test.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Description | Trait Category | t | df | p-value  (two tailed) | Mean Difference | 95% confidence interval | |
|  |  |  |  |  |  | Lower | Upper |
| Main effect of housing | Behavior  (all) | -1.707 | 170 | .090 | -.02166 | -.0467 | .0034 |
| Main effect of housing | Physiology  (all) | -.619 | 105 | .537 | -.01031 | -.0433 | .0227 |
| Main effect of housing | Anatomy | -1.420 | 36 | .164 | -.03855 | -.0936 | .0165 |
| Main effect of housing | Behavior (CNS) | -1.069 | 140 | .287 | -.01541 | -.0439 | .0131 |
| Main effect of housing | Behavior (other) | -2.044 | 29 | .050\*  Control more variable than EE (mean = 0.449 ± .025) | -.05100 | -.1020 | .0000 |
| Main effect of housing | Immune System | -.577 | 37 | .567 | -.01395 | -.0629 | .0350 |
| Main effect of housing | Molecules | .845 | 18 | .409 | .04444 | -.0661 | .1550 |
| Main effect of housing | Organ Function | .038 | 11 | .971 | .00164 | -.0939 | .0972 |
| Main effect of housing | E-phys | -1.420 | 36 | .164 | -.03855 | -.0936 | .0165 |

**\***A mean value of 0.5 would indicate that control and EE groups are the same. Values less than 0.5 indicate that control housing is more variable. Values that are more than 0.5 indicate that EE is more variable.