**Supplementary Table 5.** Absolute values of relative fat mass and hormone concentration after exercise. Effect of social isolation.

|                | C-Sed            | C-Ex            | Iso-Sed          | Iso-Ex          |
|----------------|------------------|-----------------|------------------|-----------------|
| **Males**      |                  |                 |                  |                 |
| WAT gonadal    | 0.0119 ± 0.0005  | 0.0119 ± 0.0007 | 0.0147 ± 0.010*  | 0.0146 ± 0.009* |
| (g/g BW)       |                  |                 |                  |                 |
| WAT retro      | 0.0103 ± 0.0007  | 0.0092 ± 0.0008 | 0.0123 ± 0.0006* | 0.0132 ± 0.0018*|
| (g/g BW)       |                  |                 |                  |                 |
| WAT inter      | 0.0023 ± 0.0002  | 0.0020 ± 0.0002 | 0.0028 ± 0.0005  | 0.0025 ± 0.0003 |
| (g/g BW)       |                  |                 |                  |                 |
| Cort (ng/ml)   | 74.06 ± 21.37    | 148.12 ± 26.72  | 106.62 ± 31.14*  | 73.59 ± 14.43*  |
| TSH (ng/ml)    | 2.06 ± 0.24      | 1.80 ± 0.26*    | 2.40 ± 0.26      | 1.44 ±0.15*     |
| T3 (ng/ml)     | 1.84 ± 0.14      | 2.15 ± 0.15     | 1.79 ± 0.07      | 1.67 ± 0.11*    |
| T4 (mg/dl)     | 12.20 ± 0.80     | 12.29 ± 0.45*   | 14.37 ± 0.85*    | 14.92 ± 1.39*   |
| T4:T3 ratio    | 6.851 ± 0.676    | 5.907 ± 0.648   | 8.076 ± 0.524*   | 8.996 ± 0.719*  |
| **Females**    |                  |                 |                  |                 |
| WAT gonadal    | 0.0100 ± 0.0007^A| 0.0065 ± 0.0006^A| 0.0102 ± 0.0014^A| 0.0095 ± 0.0015^A|
| (g/g BW)       |                  |                 |                  |                 |
| WAT retro      | 0.0078 ± 0.0008^A| 0.0060 ± 0.0007^A| 0.0091 ± 0.0019^A| 0.0078 ± 0.0017^A|
| (g/g BW)       |                  |                 |                  |                 |
| WAT inter      | 0.0035 ± 0.0004^A| 0.0025 ± 0.0002^A| 0.0034 ± 0.0004^A| 0.0028 ± 0.0005^A|
| (g/g BW)       |                  |                 |                  |                 |
| Cort (ng/ml)   | 255.56 ± 22.00^A | 311.47 ± 72.61^A| 133.52 ± 13.14*^A| 184.28 ± 20.59*^A|
| TSH (ng/ml)    | 1.34 ± 0.14      | 1.83 ± 0.13^A   | 1.26 ± 0.14*     | 1.40 ±0.10*^A   |
| T3 (ng/ml)     | 0.76 ± 0.02^A    | 0.81 ± 0.04^A   | 0.75 ± 0.02^A    | 0.82 ± 0.02^A   |
| T4 (mg/dl)     | 10.72 ± 1.04^A   | 11.01 ± 0.61^A  | 9.59 ± 0.59^A    | 8.29 ± 0.89^A   |
| T4:T3 ratio    | 14.259 ± 1.520^A | 13.734 ± 0.828^A| 12.936 ± 0.978^A| 10.237 ± 1.129^A|

At PND 63, group-housed (C) and isolated (Iso) rats were separated in two groups, one was left undisturbed (Sedentary, Sed) and the other was exposed to a running wheel in alternated days during the dark period. Sed group received the amount of food that Ex group. Results are expressed in mean ± SEM. Significant ANOVAs (Supplementary Table 2B) followed by post hoc: * P<0.05 vs. C group; & P<0.05 vs. Sed group; ^ P<0.001 vs. Sex of same group.