

Antioxidant Molecular Brain Changes Parallel Adaptive Cardiovascular Response to Forced Running in Mice

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Table S1. List of TaqMan® Gene Expression Assays used for real time qPCR analysis

| Gene Symbol | Assay ID | Gene Name |
|---------------|---------------|--|
| <i>Actb</i> | Mm02619580_g1 | <i>Actin, beta</i> |
| <i>Bdnf</i> | Mm04230607_s1 | <i>Brain Derived Neurotrophic Factor</i> |
| <i>Cat</i> | Mm00437992_m1 | <i>Catalase</i> |
| <i>Creb1</i> | Mm00501607_m1 | <i>CAMP Responsive Element Binding Protein 1</i> |
| <i>Gdnf</i> | Mm00599849_m1 | <i>Glial Cell Derived Neurotrophic Factor</i> |
| <i>Nfe2l2</i> | Mm00477784_m1 | <i>NFE2 Like BZIP Transcription Factor 2</i> |
| <i>Psmb5</i> | Mm07296970_g1 | <i>Proteasome 20S Subunit Beta 5</i> |
| <i>Psmb6</i> | Mm01245590_g1 | <i>Proteasome 20S Subunit Beta 6</i> |
| <i>Psmb7</i> | Mm01327044_m1 | <i>Proteasome 20S Subunit Beta 7</i> |
| <i>Psmb8</i> | Mm01278980_g1 | <i>Proteasome 20S Subunit Beta 8</i> |
| <i>PsmB9</i> | Mm00479004_m1 | <i>Proteasome 20S Subunit Beta 9</i> |
| <i>Psmb10</i> | Mm00479052_g1 | <i>Proteasome 20S Subunit Beta 10</i> |
| <i>Sirt1</i> | Mm00490758_m1 | <i>Sirtuin 1</i> |
| <i>Sod2</i> | Mm01313000_m1 | <i>Superoxide Dismutase 2</i> |
| <i>Ubc</i> | Mm01198158_m1 | <i>Ubiquitin C</i> |
| <i>Vegfa</i> | Mm01281449_m1 | <i>Vascular Endothelial Growth Factor</i> |

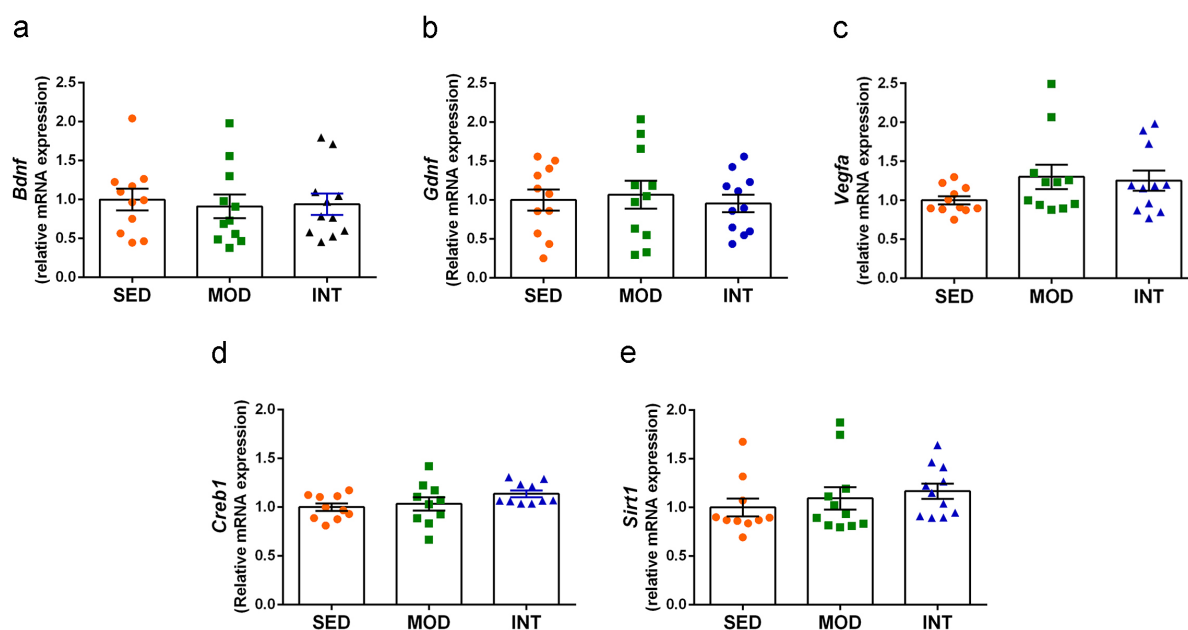


Figure S1. Gene expression of neuroplasticity markers was not significantly increased by exercise training regimens. Genes for neurotrophic factors BDNF (a), GDNF (b) and VEGF (c); and for the signal transducers CREB1 (d) and SIRT1 (e). Experimental groups: SED (orange circles), sedentary;

MOD (green squares), moderate training; INT (blue triangles), high-intensity training. Values are mean \pm SEM ((a-c) SED $n = 11$, MOD $n = 11$, INT $n = 11$); (d) SED $n = 10$, MOD $n = 10$, INT $n = 10$; (e) SED $n = 10$, MOD $n = 11$, INT $n = 11$).

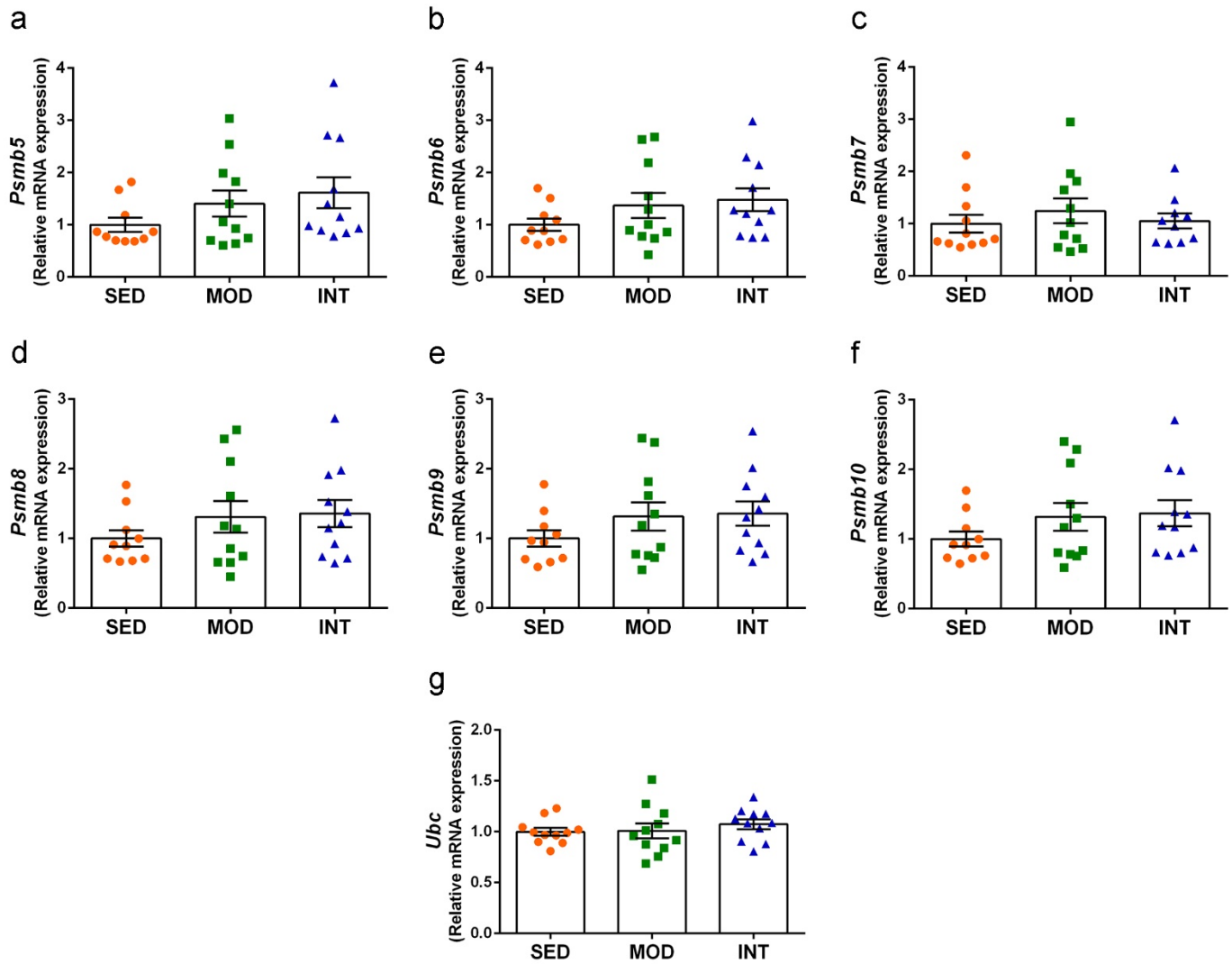


Figure S2. Gene expression of the catalytic 20S constitutive proteasome and 20S immunoproteasome was not significantly increased by exercise training regimens. Genes: *Psmb5* codifies for subunit $\beta 5$ with chymotrypsin-like activity (a); *Psmb6* codifies for subunit $\beta 1$ with caspase-like activity (b); *Psmb7* codifies for subunit $\beta 2$ with trypsin-like activity (c); *Psmb8* codifies for subunit $\beta 5i$ with chymotrypsin-like activity (d); *Psmb9* codifies for subunit $\beta 1i$ with caspase-like activity (e); *Psmb10* codifies for subunit $\beta 2i$ with trypsin-like activity (f); *Ubc* codifies for ubiquitin (g). Experimental groups: SED (orange circles), sedentary; MOD (green squares), moderate training; INT (blue triangles), high-intensity training. Values are mean \pm SEM ((a,b,d-f) SED $n = 10$, MOD $n = 11$, INT $n = 11$); (c) SED $n = 11$, MOD $n = 11$, INT $n = 10$; (g) SED $n = 11$, MOD $n = 11$, INT $n = 11$).