

**SUPPLEMENTARY TABLE S3. Overview of FNDC5/irisine level in brain, by sex and group, and P-Value for sex and group effects.**  
 FNDC5/Irisin or BDNF level determined by western blotting and expressed relative to CTRL-Male. Data are mean  $\pm$  S.E.M. Values were compared with a two-way ANOVA with Tukey post-hoc test. \* : difference vs males of the same group; # : difference vs Ctrl of the same sex.

FNCD5/irisin		CTRL male	CTRL female	SMR male	SMR female	P value (sex effect)	P value (group effect)
Prefrontal cortex	P8	1.00 $\pm$ 0.07	0.97 $\pm$ 0.12	1.10 $\pm$ 0.13	0.86 $\pm$ 0.10	0.2217	0.9374
	P15	1.00 $\pm$ 0.18	1.24 $\pm$ 0.03	1.41 $\pm$ 0.23	1.82 $\pm$ 0.20	0.1084	<b>0.0218</b>
	P21	1.00 $\pm$ 0.34	1.00 $\pm$ 0.19	0.96 $\pm$ 0.15	0.88 $\pm$ 0.10	0.8503	0.6859
	P28	1.00 $\pm$ 0.08	1.10 $\pm$ 0.15	0.72 $\pm$ 0.07	0.87 $\pm$ 0.08	0.2725	<b>0.0308</b>
Sensorimotor cortex	P8	1.00 $\pm$ 0.22	0.91 $\pm$ 0.12	0.91 $\pm$ 0.03	1.10 $\pm$ 0.06	0.7064	0.7096
	P15	1.00 $\pm$ 0.19	1.29 $\pm$ 0.18	1.27 $\pm$ 0.22	2.00 $\pm$ 0.29	<b>0.0423</b>	<b>0.0481</b>
	P21	1.00 $\pm$ 0.05	1.81 $\pm$ 0.32	1.42 $\pm$ 0.11	2.13 $\pm$ 0.38	<b>0.0090</b>	0.1630
	P28	1.00 $\pm$ 0.14	0.81 $\pm$ 0.13	1.00 $\pm$ 0.10	0.87 $\pm$ 0.12	0.2253	0.8031
Hippocampus	P8	1.00 $\pm$ 0.12	0.95 $\pm$ 0.07	1.15 $\pm$ 0.06	0.84 $\pm$ 0.09	0.0663	0.7927
	P15	1.00 $\pm$ 0.11	0.85 $\pm$ 0.13	1.65 $\pm$ 0.26	1.40 $\pm$ 0.19	0.3110	<b>0.0065</b>
	P21	1.00 $\pm$ 0.10	0.89 $\pm$ 0.08	1.31 $\pm$ 0.22	1.28 $\pm$ 0.15	0.6579	<b>0.0409</b>
	P28	1.00 $\pm$ 0.09	1.09 $\pm$ 0.14	0.98 $\pm$ 0.12	1.31 $\pm$ 0.08	0.0769	0.3856
Striatum	P8	1.00 $\pm$ 0.12	0.81 $\pm$ 0.09	0.84 $\pm$ 0.05	0.82 $\pm$ 0.11	0.3119	0.4788
	P15	1.00 $\pm$ 0.05	0.92 $\pm$ 0.04	1.06 $\pm$ 0.05	1.32 $\pm$ 0.06 *,#	0.0982	<b>0.0006</b>
	P21	1.00 $\pm$ 0.11	0.58 $\pm$ 0.07 *	0.93 $\pm$ 0.10	0.72 $\pm$ 0.11	<b>0.0059</b>	0.7367
	P28	1.00 $\pm$ 0.12	0.88 $\pm$ 0.16	0.89 $\pm$ 0.15	1.04 $\pm$ 0.09	0.9360	0.8577