Supplementary Materials

Sexual dimorphism and ageing in the human hyppocampus: Identification, validation and impact of differentially expressed genes by factorial microarray and network analysis

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Table S7: Differential functional classes associated to metabolism for the set of sex-dependent genes. Functionalities are derived by ontology analysis performed on the whole compatible network (for details see the Supplementary Table S8).

Ontology process (Metabolic)	**genes with Sex Ratio# <1**	**genes with Sex Ratio# >1**
	Hypergeometric probability	Hypergeometric probability
Xenobiotic response, drug response	3.2 x 10^{-8}	4.4 x 10^{-6}
Adenylate cyclase	8.0 x 10^{-6}	7.8 x 10^{-4}
3',5'-cyclic nucleotide phosphodiesterase	1.1 x 10-^{5}	3.2 x10^{-5}
c-GMP catabolism	6.6 x 10^{-7}	8.0 x 10^{-4}
Carboxylic Acid Transport	1.0 x 10^{-7}	8.7 x 10^{-3}
Gluconeogenesis, glucose biosynthesis	3.3 x 10^{-6}	6.3 x 10^{-3}
Tricarboxylic acid cycle (TCA), respiration	1.2 x 10-^{6}	8.7 x 10^{-3}
Amino acid biosynthesis	1.3 x 10^{-1}	8.0 x 10^{-5}
Amino acid catabolism	5.9 x 10^{-2}	2.6 x 10^{-4}
Glycero-phospholipids	1.3 x 10^{-2}	3.6 x 10^{-4}
Phospho-Inositosides metabolism	1.2 x 10^{-1}	1.3 x 10^{-4}
One-Carbon metabolism	1.5 x 10^{-4}	4.1 x 10^{-4}
Glutathione metabolic processes	8.2 x 10^{-4}	5.8 x 10^{-4}
Steroid response	1.3 x 10^{-2}	4.8 x 10^{-4}
Aromatase activity	7.2 x 10^{-3}	3.2 x10^{-5}
Response to nitrosative compounds	5.8 x 10^{-7}	1.6 x 10^{-5}
Superoxide, hydrogen peroxide	6.2 x 10^{-3}	1.1 x 10^{-2}
Nitric Oxide generation and regulation	NDAS**	4.2 x 10^{-4}
Caffein oxidase	5.8 x 10^{-7}	6.2 x 10^{-8}
Endoplasmic reticulum membrane protein	NDAS	2.8 x 10^{-4}
Glycosylation of proteins	NDAS	1.3 x 10^{-5}
Golgi membrane proteins	1.7 x 10^{-1}	8.7 x 10^{-5}
Lysosome proteins	1.3 x 10^{-3}	3.4 x 10^{-4}

* The hypergeometric probabilities are values corrected for the multi-comparisons. In addition, the values indicated are the averages of the probabilities along the several ontology categories that make up each sub-group defined, but weighed according to the relative frequency of the initial ontology classes that resulted from the analysis; ** NDAS: no-detected as significant.