

**Supplementary table 1: List of genes related to the top 20 differentially methylated regions (DMRs) in the analysis of the DNA methylation profile of patients pre-trauma vs. post-trauma (analysis 1).**

Gene ID(s)	Gene name(s)	hg19 genomic coordinates	No. of CpGs	Percent mean methylation difference	q-value (HMFDR)
METTL5	Methyltransferase 5	Chr2: 170677497-170677752	2	-10.1	4.44 x 10 <sup>-7</sup>
MNAT1	MNAT1 component of CDK activating kinase	Chr14: 61410604-61411138	2	-11.5	1.48 x 10 <sup>-6</sup>
TTL1	TTL family tubulin polyglutamylase complex subunit L1	Chr22: 43484984-43485702	13	0.2	2.88 x 10 <sup>-6</sup>
TSEN2	tRNA splicing endonuclease subunit 2	Chr3: 12571276-12571675	4	-3.9	2.96 x 10 <sup>-6</sup>
YAE1D1	YAE1 Maturation Factor Of ABCE1	Chr7: 39609343-39609707	2	-10.1	3.12 x 10 <sup>-6</sup>
LYRM5	Electron Transfer Flavoprotein Regulatory Factor 1	Chr12: 25347663-25348826	18	0.4	3.99 x 10 <sup>-6</sup>
CASC1	Cancer Susceptibility Candidate 1				
RSU1	Ras suppressor protein 1	Chr10: 16859107-16860140	14	1.2	8.10 x 10 <sup>-6</sup>
SSBP4	Single Stranded DNA Binding Protein 4	Chr19: 18543829-18544419	3	6.6	1.29 x 10 <sup>-5</sup>
ACER2	Alkaline Ceramidase 2	Chr9: 19408584-19409652	10	1.3	1.38 x 10 <sup>-5</sup>
KLC4	Kinesin Light Chain 4	Chr6: 43025862-43026774	2	-8.7	1.89 x 10 <sup>-5</sup>
MRPL2	Mitochondrial ribosomal protein L2				
NR2F2	Nuclear receptor subfamily 2 group F member 2	Chr15: 96875104-96876265	12	1.3	2.00 x 10 <sup>-5</sup>
RNF216P1	Ring Finger Protein 216 Pseudogene 1	Chr7: 5014008-5014435	3	3.6	2.21 x 10 <sup>-5</sup>
NIFKP2	Nucleolar protein interacting with the FHA domain of MKI67 pseudogene 2	Chr5: 174350112-174350186	2	-6.2	2.27 x 10 <sup>-5</sup>
RPS15	Ribosomal Protein S15	Chr19: 1438017-1439250	15	-0.5	2.34 x 10 <sup>-5</sup>
SNORD88B	Small Nucleolar RNA, C/D Box 88B	Chr19: 51302371-51303252	6	-0.9	2.59 x 10 <sup>-5</sup>
SNORD88A	small nucleolar RNA, C/D box 88A				
YWHAQ	Tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein theta	Chr2: 9770130-9771081	6	0.8	2.66 x 10 <sup>-5</sup>
ACTN1	Actinin alpha 1	Chr14: 69356700-69356891	2	-5.6	3.05 x 10 <sup>-5</sup>
HERC2	HECT and RLD domain containing E3 ubiquitin protein ligase 2	Chr15: 28380110-28380456	2	-9.1	3.34 x 10 <sup>-5</sup>
KRT19	Keratin 19	Chr17: 39684038-39684825	6	2.6	3.38 x 10 <sup>-5</sup>
SPDYE4	Speedy/RINGO Cell Cycle Regulator Family Member E4	Chr17: 8661813- 8662302	7	-2.4	3.48 x 10 <sup>-5</sup>