Tumor type	Correlation between *JMJD1A* and *JMJD1B*	Correlation between *JMJD1A* and *JMJD1C*	Correlation between *JMJD1B* and *JMJD1C*
Colorectal adeno-carcinoma (n = 592)	r = 0.416 P = 3.50e-26	r = 0.481 P = 1.59e-35	r = 0.441 P = 1.56e-29
Prostate adeno-carcinoma (n = 493)	r = 0.590 P = 1.30e-47	r = 0.652 P = 4.50e-61	r = 0.636 P = 3.54e-57
Breast invasive carcinoma (n = 1082)	r = 0.348 P = 3.18e-32	r = 0.458 P = 2.80e-57	r = 0.404 P = 1.07e-43
Lung adenocarcinoma (n = 510)	r = 0.258 P = 3.28e-9	r = 0.153 P = 5.12e-4	r = 0.484 P = 2.24e-31
Lung squamous cell carcinoma (n = 484)	r = 0.180 P = 6.95e-5	**r = -0.117** P = 9.87e-3	r = 0.324 P = 2.80e-13
Pancreatic adeno-carcinoma (n = 177)	r = 0.406 P = 1.98e-8	r = 0.371 P = 3.83e-7	r = 0.478 P = 1.72e-11
Hepatocellular carcinoma (n = 366)	r = 0.561 P = 1.08e-31	r = 0.518 P = 1.44e-26	r = 0.590 P = 1.14e-35
Stomach adeno-carcinoma (n = 412)	r = 0.405 P = 1.16e-17	r = 0.454 P = 2.70e-22	r = 0.375 P = 3.12e-15
Renal clear cell carcinoma (n = 510)	r = 0.319 P = 1.50e-13	r = 0.456 P = 1.44e-27	r = 0.580 P = 3.32e-47
Renal papillary cell carcinoma (n = 283)	r = 0.401 P = 2.23e-12	r = 0.575 P = 2.42e-26	r = 0.616 P = 5.83e-31
Cutaneous melanoma (n = 441)	r = 0.331 P = 8.94e-13	r = 0.379 P = 1.30e-16	r = 0.184 P = 1.02e-4
Ovarian serous cyst-adenocarcinoma (n = 300)	r = 0.256 P = 7.30e-6	r = 0.296 P = 1.77e-7	r = 0.325 P = 8.52e-9
Uterine corpus endome-trial carcinoma (n = 527)	r = 0.428 P = 6.60e-25	r = 0.431 P = 2.96e-25	r = 0.590 P = 1.22e-50
Uterine carcinosarcoma (n = 57)	r = 0.446 P = 5.08e-4	r = 0.416 P = 1.28e-3	r = 0.451 P = 4.37e-4
Cervical squamous cell carcinoma (n = 294)	r = 0.316 P = 2.98e-8	r = 0.211 P = 2.72e-4	r = 0.449 P = 5.24e-16
Thyroid carcinoma (n = 497)	r = 0.599 P = 7.07e-50	r = 0.629 P = 3.45e-56	r = 0.695 P = 6.14e-73
Lower grade glioma (n = 514)	r = 0.519 P = 8.07e-37	r = 0.361 P = 2.82e-17	r = 0.723 P = 2.12e-84
Head and neck squamous cell carcinoma (n = 515)	r = 0.429 P = 1.88e-24	r = 0.208 P = 1.88e-6	r = 0.389 P = 4.99e-20
Esophageal adeno-carcinoma (n = 181)	r = 0.143 **P = 0.054**	r = 0.115 **P = 0.123**	r = 0.281 P = 1.28e-4
Adrenocortical carcinoma (n = 78)	r = 0.043 **P = 0.708**	**r = -0.137** **P = 0.232**	r = 0.215 **P = 0.059**
Acute myeloid leukemia (AML; n = 173)	r = 0.204 P = 6.96e-3	r = 0.047 **P = 0.535**	r = 0.133 **P = 0.081**

Supplementary Table S1. Correlation between *JMJD1* mRNA levels in tumors. Expression data (RSEM, batch normalized from Illumina HiSeq_RNASeqV2) are based on TCGA PanCancer Atlas and were analyzed through cBioPortal (www.cbioportal.org); r, Spearman correlation. Red color marks absence of statistical significance (P ≥ 0.05), while negative correlation coefficients are highlighted in magenta.