

SUPPLEMENTARY TABLE**Supplementary Table S1: Gene sets (TOP 20) enriched in recurrent GBM**

	NAME	ES	NES	NOM <i>p</i> -val
1	DNA_DAMAGE_RESPONSE SIGNAL_TRANSDUCTION	-0.51	-1.89	0.000
2	MICROTUBULE_CYTOSKELETON_ORGANIZATION_AND_BIOGENESIS	-0.50	-1.84	0.000
3	HETEROCYCLE_METABOLIC_PROCESS	-0.52	-1.79	0.004
4	REGULATION_OF_MUSCLE_CONTRACTION	-0.57	-1.78	0.006
5	REGULATION_OF_CELL_ADHESION	-0.48	-1.76	0.006
6	LOCOMOTORY_BEHAVIOR	-0.38	-1.75	0.000
7	BEHAVIOR	-0.34	-1.68	0.000
8	DNA_DAMAGE_CHECKPOINT	-0.52	-1.67	0.010
9	SULFUR_COMPOUND_BIOSYNTHETIC_PROCESS	-0.54	-1.64	0.026
10	DNA_INTEGRITY_CHECKPOINT	-0.48	-1.60	0.018
11	ENDOSOME_TRANSPORT	-0.49	-1.59	0.025
12	ESTABLISHMENT_AND_OR_MAINTENANCE_OF_CELL_POLARITY	-0.51	-1.59	0.024
13	REGULATION_OF_ENDOCYTOSIS	-0.52	-1.59	0.014
14	MICROTUBULE_BASED_PROCESS	-0.36	-1.59	0.004
15	CHROMOSOME_SEGREGATION	-0.44	-1.58	0.013
16	CELLULAR_PROTEIN_CATABOLIC_PROCESS	-0.38	-1.56	0.010
17	ENERGY_RESERVE_METABOLIC_PROCESS	-0.53	-1.56	0.042
18	RESPONSE_TO_ORGANIC_SUBSTANCE	-0.44	-1.55	0.021
19	REGULATION_OF_DNA_METABOLIC_PROCESS	-0.39	-1.54	0.006
20	POTASSIUM_ION_TRANSPORT	-0.37	-1.52	0.021