





Enrichment plot: REACTOME\_INTERFERON\_GAMMA\_SIGNALING 0.7 8,0 B ) e.5 0,5 0,4 0.3 Enrich 0,2 0.0 of\_Classes) (log2\_Ratio, Zero cross at 15470 list metric -2 \*REST (negatively correlated) 5.000 10.000 15.000 20.000 25.000 30.000 Rank in Ordered Dataset 3 Ranked Enrichment profile — Hits — Ranking metric scores







Enrichment plot: REACTOME\_INTERFERON\_SIGNALING







Enrichment plot: REACTOME\_RIG\_I\_MDA5\_MEDIATED\_INDUCTION\_OF\_IF N\_ALPHA\_BETA\_PATHWAYS



Enrichment plot: MOSERLE\_IFNA\_RESPONSE











#### **1** Supplementary figure legends

#### 2 Suppl. Figure 1: BV6 enhances TMZ-induced apoptosis

A172 cells (a) or T98G cells (b) were treated for 144 hours with 100 µM TMZ and/or
or 2 µM BV6 (A172) or 4 µM BV6 (T98G) or DMSO. Apoptosis was determined by
FACS analysis of DNA fragmentation of PI-stained nuclei. Representative graphs of
three independent experiments performed in triplicate are shown.

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#### 8 Suppl. Figure 2: BV6/TMZ co-treatment upregulates IFN-responsive genes

A172 cells stably expressing IκBα-SR or EV were treated for 9 hours with 100 μM
TMZ and/or 2 μM BV6 or DMSO. Whole-Genome expression profiling of three
independent experiments was performed. Genes with similar regulation in A172 cells
expressing IκBα-SR served as control for background expression of non-NF-κBstimulated genes. GSEA was performed comparing TMZ/BV6-treated cells to all
other settings. Enrichment plots of IFN signaling-mediated gene sets out of the top
100 regulated gene sets upon BV6/TMZ-treatment are shown.

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#### 17 Suppl. Figure 3: IFNα sensitizes glioblastoma cells to TMZ-induced apoptosis

18 A172 cells were treated for 120 hours with 100  $\mu$ M TMZ and/or 1 ng/ml IFN $\alpha$  or 19 DMSO. Apoptosis was determined by FACS analysis of DNA fragmentation of PI-20 stained nuclei. Mean values + SD of three independent experiments performed in 21 triplicate are shown; \*p<0.05; \*\*p<0.01.

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#### 23 Suppl. Figure 4: BV6/TMZ-mediated upregulation of Puma and Bax

(a) A172 cells (left) or T98G cells (right) were treated for 48 hours with 100 μM TMZ
and/or 2 μM BV6 (A172) or 4 μM BV6 (T98G) or DMSO. Bax, Bak, Puma, Noxa, Bid,
Bim and Bmf mRNA levels were analyzed by qRT-PCR, normalized to 28S rRNA

expression and fold increase in mRNA levels are shown. Mean values + SD of two
independent experiments performed in duplicate are shown.

(b) A172 cells (left) or T98G cells (right) were treated for 48 hours with 100 μM TMZ
and/or 2 μM BV6 (A172) or 4 μM BV6 (T98G) or DMSO. Expression levels of Bax
and Puma were analyzed by western blotting, asterisks indicate unspecific bands.
Expression of β-actin served as loading control. A representative experiment of two
independent experiments is shown.

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# Suppl. Figure 5: BV6-mediated upregulation of IFNβ sensitizes glioblastoma cells to TMZ-induced mitochondrial apoptosis

Smac mimetic BV6-induced NF-κB-activation promoted transcriptional upregulation
of IFNβ. IFNβ and TMZ cooperated to induce apoptosis in glioblastoma cells.
Cooperative upregulation of the proapoptotic Bcl-2 family proteins Puma and Bax via
BV6/TMZ treatment contributed to BV6/TMZ-induced apoptosis.

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