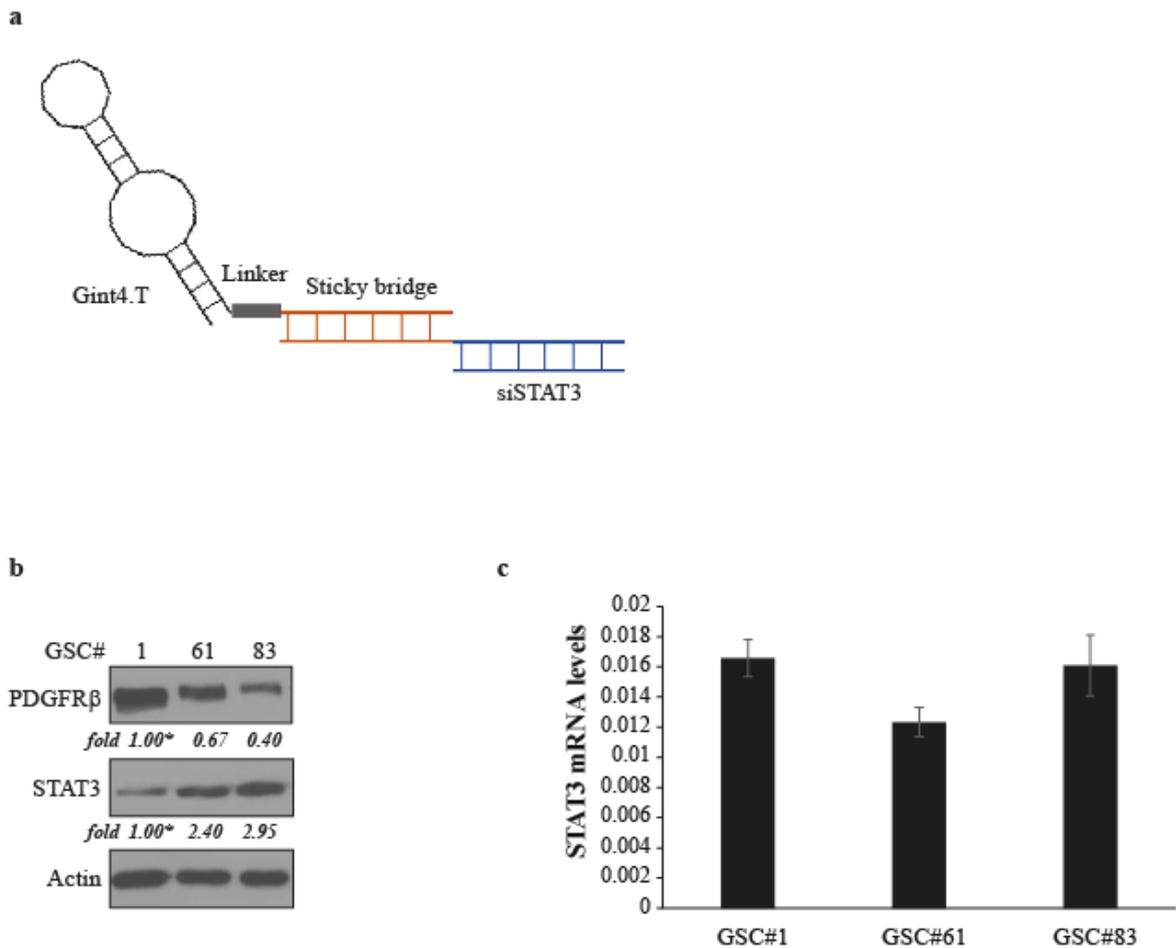


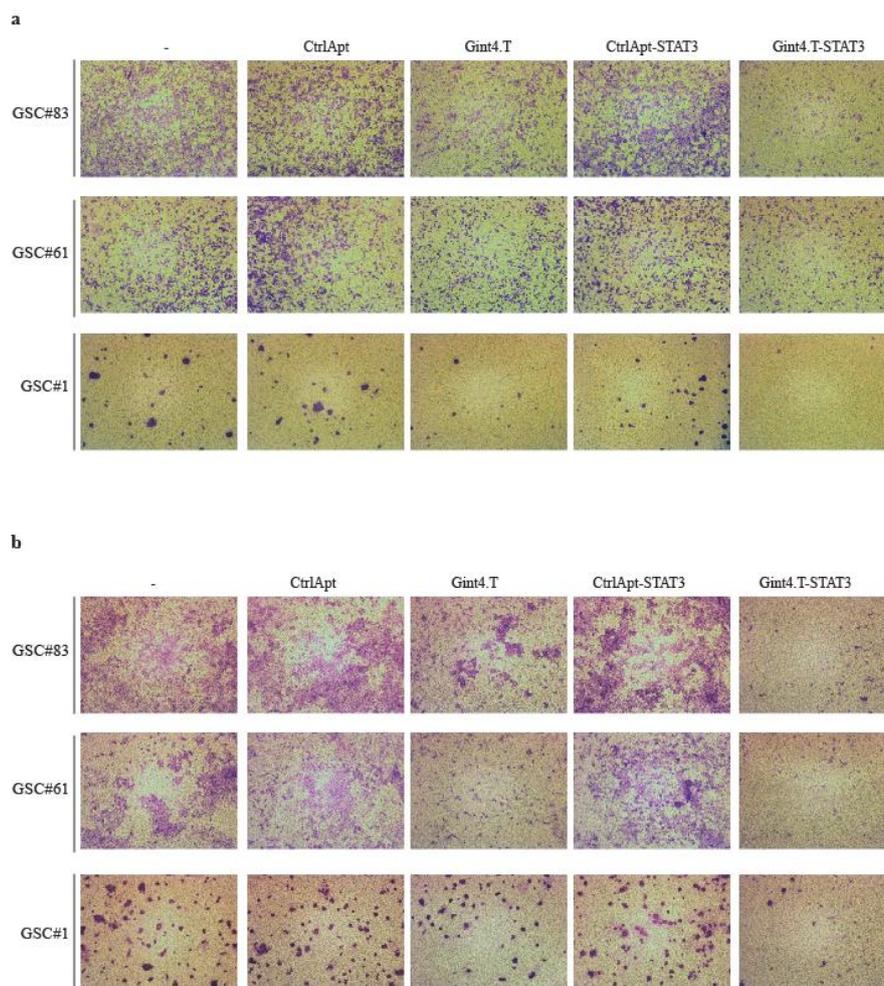
Supplementary Materials

# Combined Targeting of Glioblastoma Stem-Like Cells by Neutralizing RNA-Bio-Drugs for STAT3

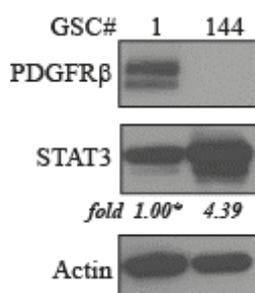
Carla Lucia Esposito, Silvia Nuzzo, Maria Luigia Ibba, Lucia Ricci-Vitiani, Roberto Pallini, Gerolama Condorelli, Silvia Catuogno and Vittorio de Franciscis



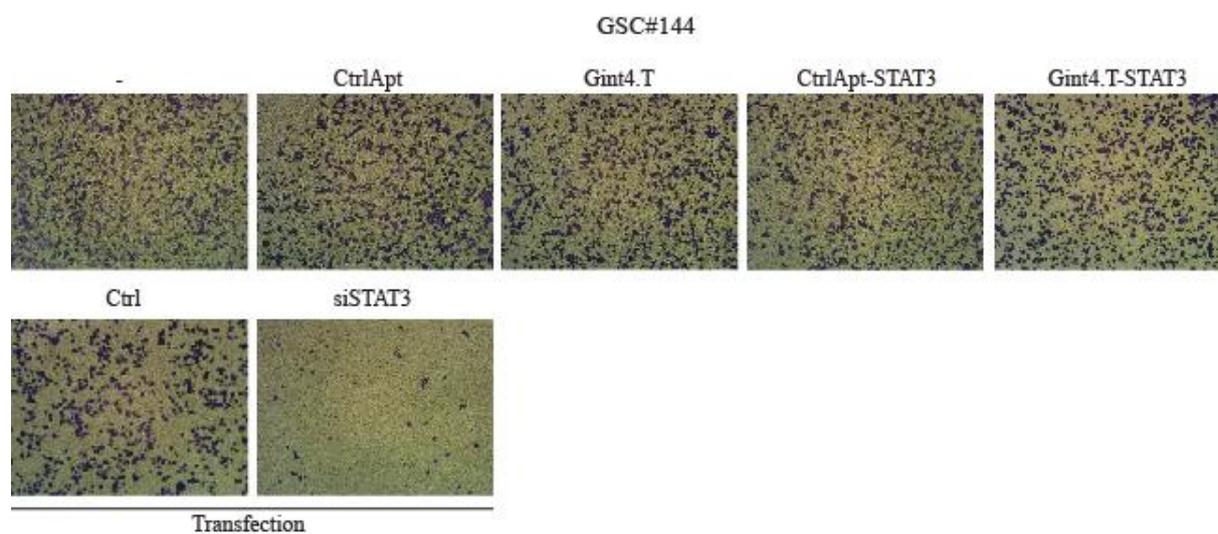
**Figure S1.** Gint4.T-STAT3 and primary GSCs. (a) scheme of Gint4.T-STAT3 conjugate. (b) Levels of PDGFR $\beta$ , STAT3 and actin (used as a loading control) were analysed by immunoblot in the indicated primary GSCs. Values below the blots indicate quantization ratio relative to GSC#1, labelled with asterisk normalized on the loading control signals. (c) Levels of STAT3 mRNA analysed by RT-qPCR in the indicated primary GSCs.



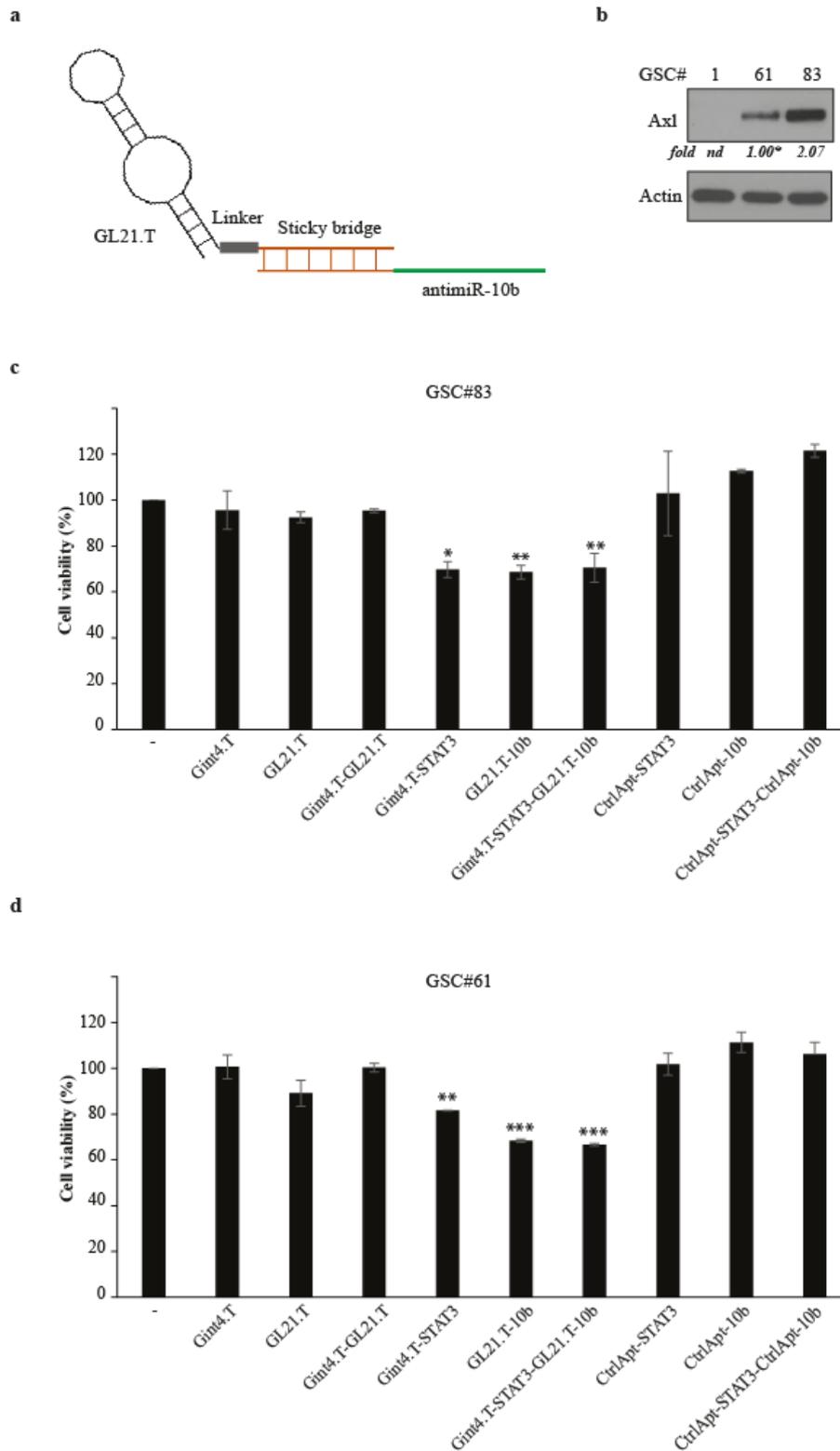
**Figure S2.** Gint4.T-STAT3 effect on GSC migration and invasion. Cell motility (a) or invasion (b) of indicated GSCs (PDGFRβ<sup>+</sup>) left untreated or treated with indicated aptamers or conjugates (400 mol/L) for 24 hours was analysed. Representative micrographs are shown. Magnification, 10×.



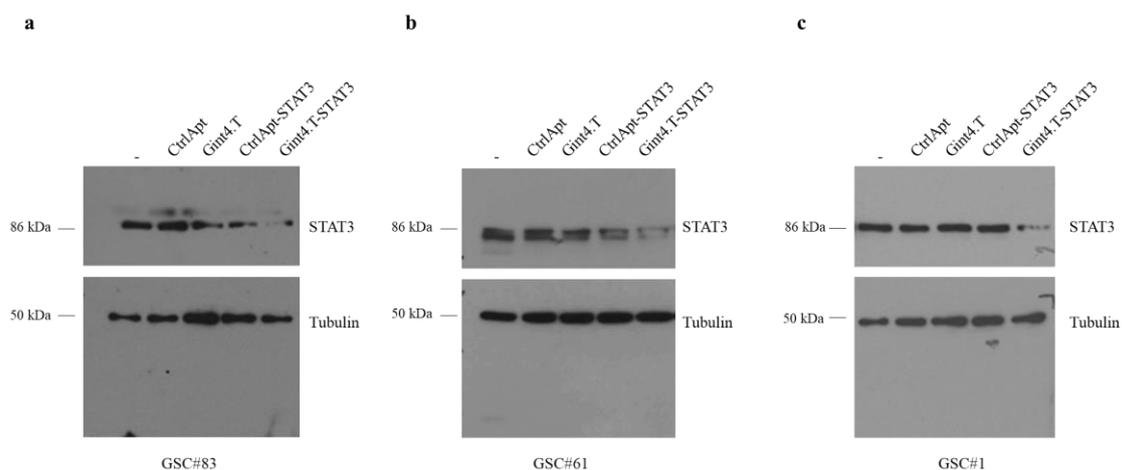
**Figure S3.** PDGFRβ, STAT3 expression in primary GSC#144. Levels of PDGFRβ, STAT3 and tubulin (used as a loading control) were analysed by immunoblot in the indicated primary GSCs. Values below the blots indicate quantization relative to GSC#1, labelled with asterisk normalized on the loading control signals.



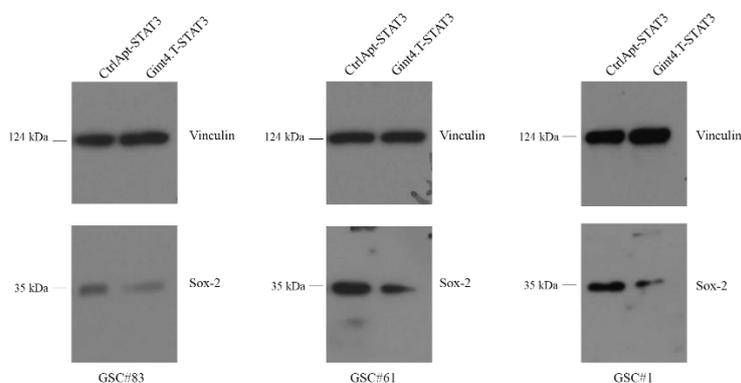
**Figure S4.** Gint4.T-STAT3 effect on GSC#144 migration. Cell motility of GSC#144 (PDGFR $\beta$ ) left untreated (-), treated with indicated aptamers or conjugates (400 mol/L) or transfected with siSTAT3. Representative micrographs are shown. Magnification, 10 $\times$ .



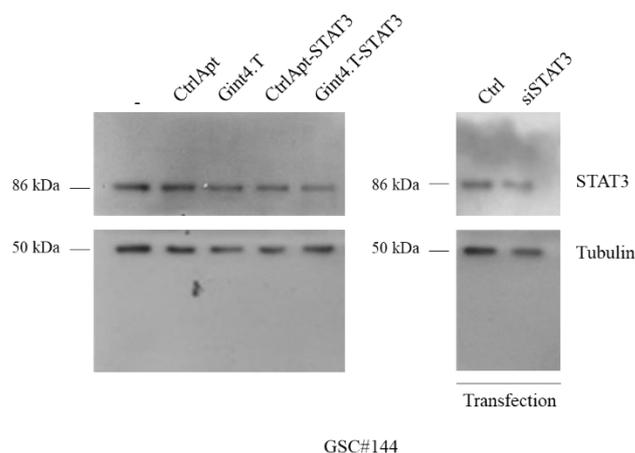
**Figure S5.** Cell viability with Gint4.T-STAT3 and GL21.T-10b combination. **(a)** Scheme of GL21.T-10b conjugate. **(b)** Levels of Axl and actin (used as a loading control) were analysed by immunoblot in the indicated primary GSCs. Values below the blots indicate band intensity ratio normalized on the loading control signals. **(c,d)** GSC#83 (c) or 61 (d), (PDGFR $\beta$ <sup>+</sup>, Axl<sup>+</sup>), were left untreated (-) or treated with indicated aptamer or conjugates (400 mol/L) for 72 hours alone or in combination. Cell viability was measured and expressed as per cent of viable cells with respect to untreated cells. Statistics versus untreated samples by Student's *t* test: \*, *p* < 0.05; \*\*, *p* < 0.01; \*\*\*, *p* < 0.001. Vertical bars depict mean  $\pm$  SD.



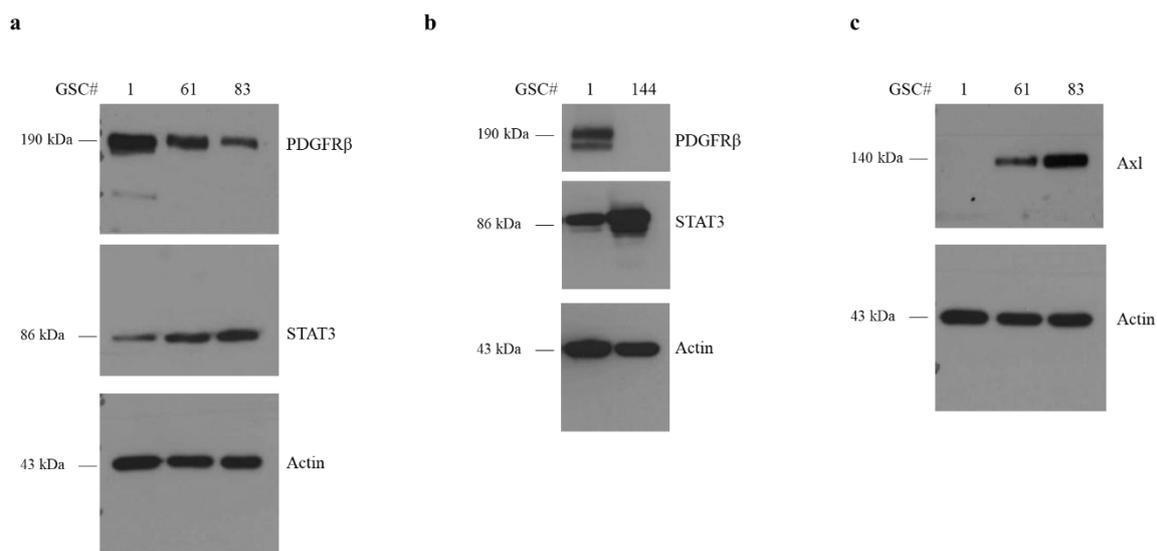
**Figure S6.** Whole blots of Figure 1. (a,c) Whole blots of Figure 1 a, b and c (left panels), respectively. Filters were probed for: STAT3 (upper parts) or tubulin (lower parts).



**Figure S7.** Whole blots of Figure 2d. Whole blots of Figure 2 d (right panels). Filters were probed for Sox-2 and vinculin antibodies.



**Figure S8.** Whole blots of Figure 5a. Filters were probed for STAT3 (upper parts) or tubulin (lower parts).



**Figure S9.** Whole blots of supplementary figures. (a) Whole blots of Figure S1a. The upper part was probed first with PDGFR $\beta$  and then with STAT3, the lower part was probed with Actin. (b,c) whole blots Figure S3 or Figure S5b, respectively.



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