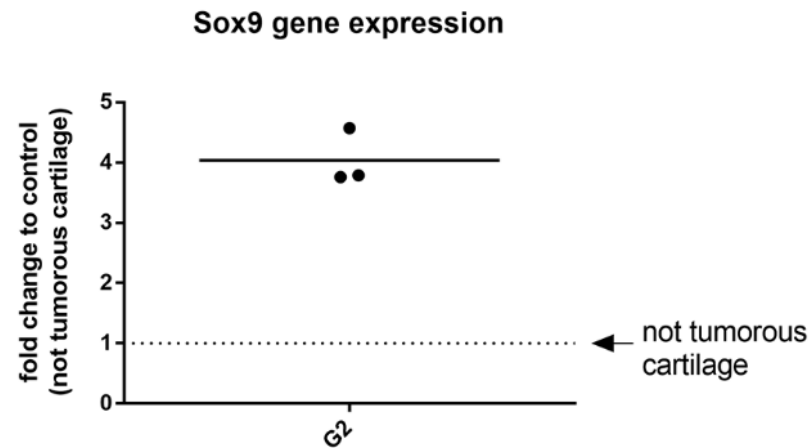


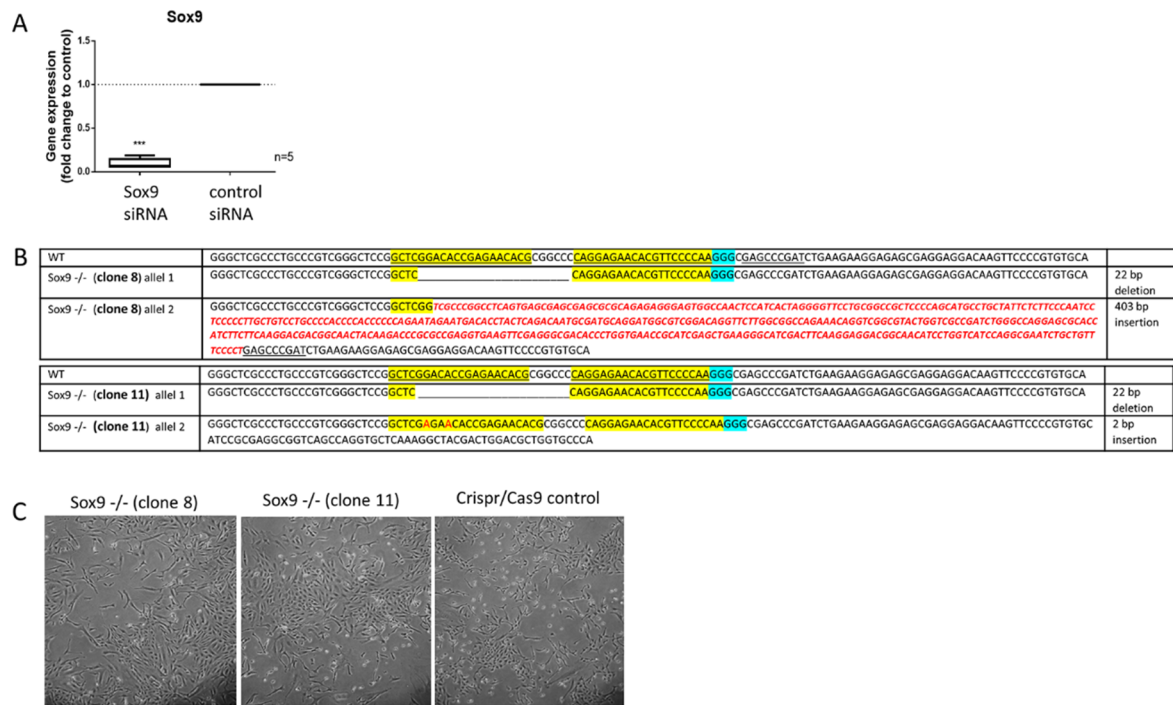
# SOX9 Knockout Induces Polyploidy and Changes Sensitivity to Tumor Treatment Strategies in a Chondrosarcoma Cell Line



**Figure S1.** SOX9 gene expression in 3 biopsies from grade II (G2) chondrosarcoma were analysed and compared to 3 not tumorous cartilage tissue samples.

| Sample no        | dedifferentiated area          | highly-differentiated area |
|------------------|--------------------------------|----------------------------|
| 663/15           | negative                       | N/A                        |
| 11466/14 B       | negative                       | N/A                        |
| 5869/14 IVB      | negative                       | N/A                        |
| 5869/14 IVA      | negative                       | positive                   |
| 11115/13F        | negative                       | N/A                        |
| 11115/13 G       | N/A                            | positive                   |
| 11115/13A        | negative                       | positive (G2)              |
| 3744/13K         | negative                       | N/A                        |
| 7240/13 G        | negative                       | positive (weak, G3)        |
| 1977/12 IIAT     | N/A                            | N/A                        |
| 1977/12 IIAN     | negative                       | N/A                        |
| 1977/12 IIAO     | negative                       | positive                   |
| 24422/11 ICH     | negative                       | N/A                        |
| 16770/11 Z7      | negative                       | N/A                        |
| 16770/11A        | N/A                            | N/A                        |
| 16770/11 D       | negative                       | N/A                        |
| 19840/10 IIF     | negative                       | positive                   |
| 16295/09 IA      | N/A                            | positive (G2-G3)           |
| 8314/09 IC       | negative                       | positive (G2-G3)           |
| 17775/08 IIB     | negative                       | N/A                        |
| 17775/08 IIA     | N/A                            | positive (G2)              |
| 14420/05 IIIE    | weakly positive (single cells) | positive                   |
| 9646/05 IA       | negative                       | N/A                        |
| 11362/04 IA      | weakly positive (single cells) | N/A                        |
| 11273/04 Z6      | N/A                            | positive (G3)              |
| 11273/04 Z3      | N/A                            | positive (G3)              |
| 6266/03 B        | negative                       | N/A                        |
| 6266/03 F        | negative                       | positive                   |
| 17359/02 B       | negative                       | negative                   |
| 17359/02 F       | weakly positive (single cells) | N/A                        |
| 19255/00 IID     | N/A                            | positive (G2-G3)           |
| 8108/00          | positive                       | positive                   |
| 4998/00          | N/A                            | positive (G3)              |
| 8580/12 A        | N/A                            | N/A                        |
| 4681/04 H        | positive                       | N/A                        |
| 21764/04 D, C    | weakly positive (single cells) | positive                   |
| 21191/04 I C H   | N/A                            | N/A                        |
| 20410/05 I V, IS | weakly positive (single cells) | positive                   |
| 11907/07 IA      | positive                       | N/A                        |
| 3319/15          | N/A                            | N/A                        |
| 11211/15 Z3      | negative                       | N/A                        |

**Figure S2.** Summary of the TMA analysis. Dedifferentiated and highly differentiated areas of the chondrosarcoma tissue were evaluated for SOX9 reactivity. Each tumor sample was spotted as triplet on the TMA.



**Figure S3.** Generation of SOX9 knockdown and knockout clones in HTB94 cells. **(A)** SOX9 knockdown after siRNA transfection leads to a 80–90% reduction of gene expression. **(B)** Alignment of the DNA sequences of SOX9 knockout clones with the wild type (WT) sequence. Guide RNA (gRNA) targeting sites are highlighted in yellow, PAM sequence in light blue and inserted nucleotides in red. Deleted parts are marked as low line. **(C)** Morphological appearance of the SOX9 knockout clones which are of single-cell derived origin (magnification 10×). Results are means  $\pm$  SD; \*\*\*  $p \leq 0.001$ .