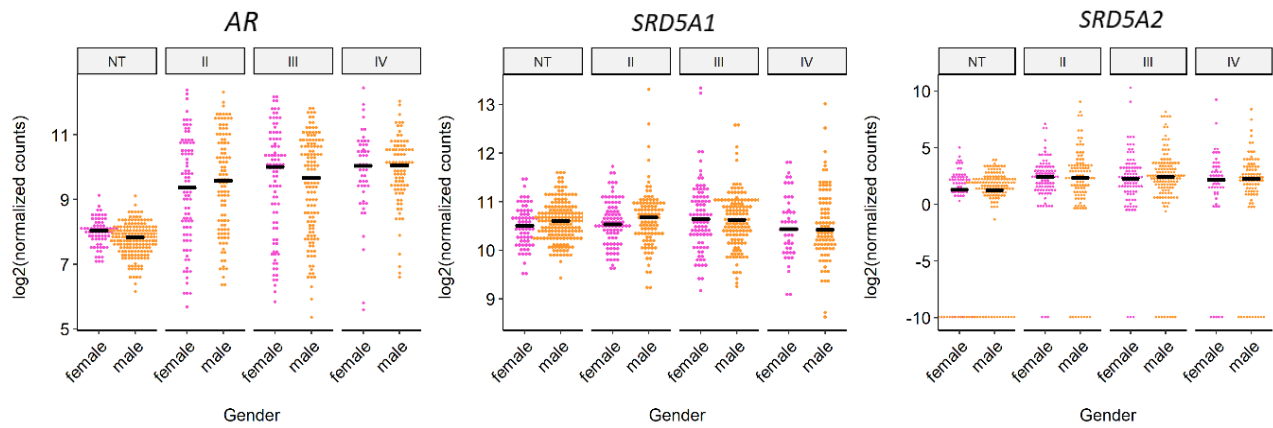
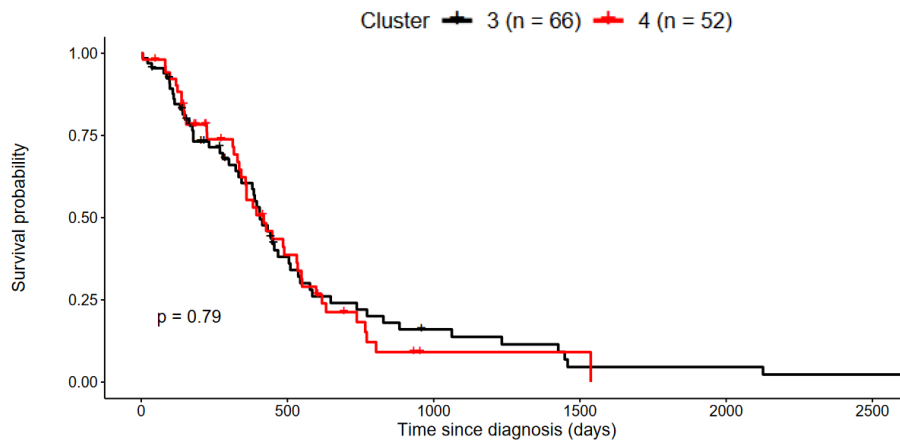


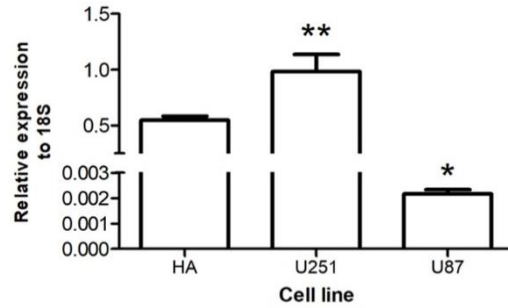
## Supplementary Material



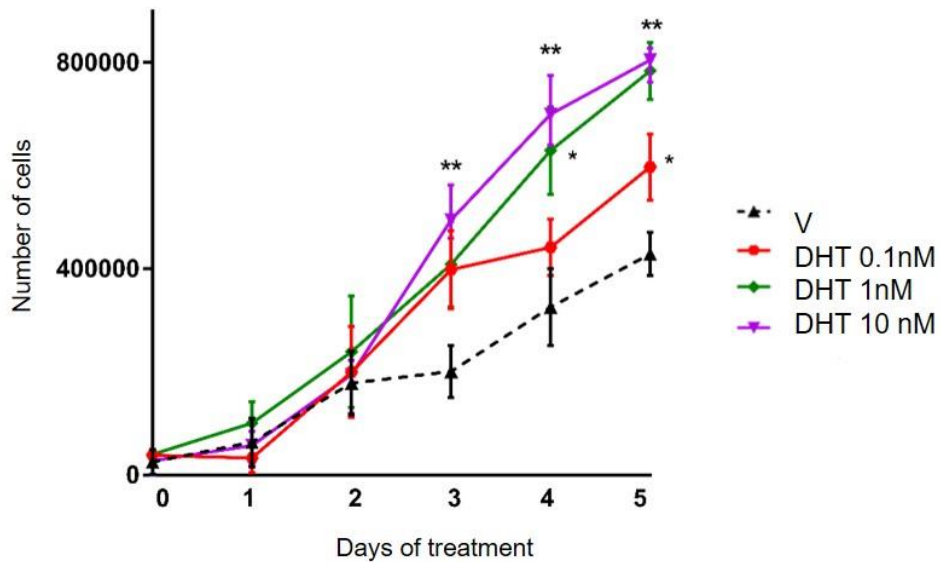
**Supplementary Figure 1. *AR*, *SRD5A1* and *SRD5A2* gender differences in expression in human astrocytoma primary tumor biopsies.** RNA-Seq data from glioma primary tumors (196 grade II, 223 grade III, 139 grade IV or GBM) were obtained from TCGA repository and compared against 249 samples of normal brain cortex obtained from GTEx database. Samples were stratified by patient's gender. No significant differences were found.



**Supplementary Figure 2. Survival plots of GBM patients in clusters 3 and 4.** Survival plots for patients belonging to cluster 3 and 4 of GBMs (as describe on Figure 1) were generated with TCGA\_analyze\_survival tool from TCGAbiolinks for R. The p-value describes the result from a log-rank test that compares the curves and test them for differences in survival time. A P-value < 0.05 is interpreted as significant.



**Supplementary Figure 3. AR expression in GBM cells.** AR relative expression (normalized to 18S ribosomal RNA by  $\Delta$ Ct method) is shown. RNA extraction followed by RT-qPCR was carried out in U87 and U251 cells cultured under basal conditions. Healthy Human Astrocytes total RNA (HA) was used as normal tissue control. (\*\*  $p < 0.01$  vs HA, \*  $p < 0.05$  vs HA).



**Supplementary Figure 4. Effect of DHT on the growth of U251 cells.** U251 cell count results for 5 days with vehicle (V) and DHT (0.1 nM-10 nM DHT). Cell counting was carried out for 5 consecutive days using the trypan blue dye exclusion technique. Graph shows a significant increase in the number of U251 cells, treated with DHT with the three concentrations evaluated. The concentration of 10 nM had an inducing effect from day 3 of treatment with respect to the vehicle. Each point represents the mean  $\pm$  SD,  $n = 4$  independent tests. \*  $p < 0.05$ ; \*\*  $p < 0.01$  DHT vs V.