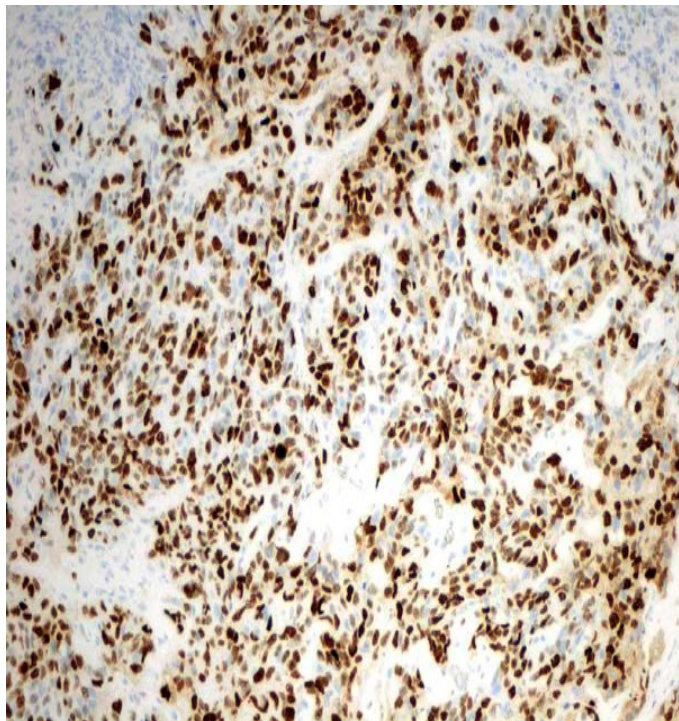
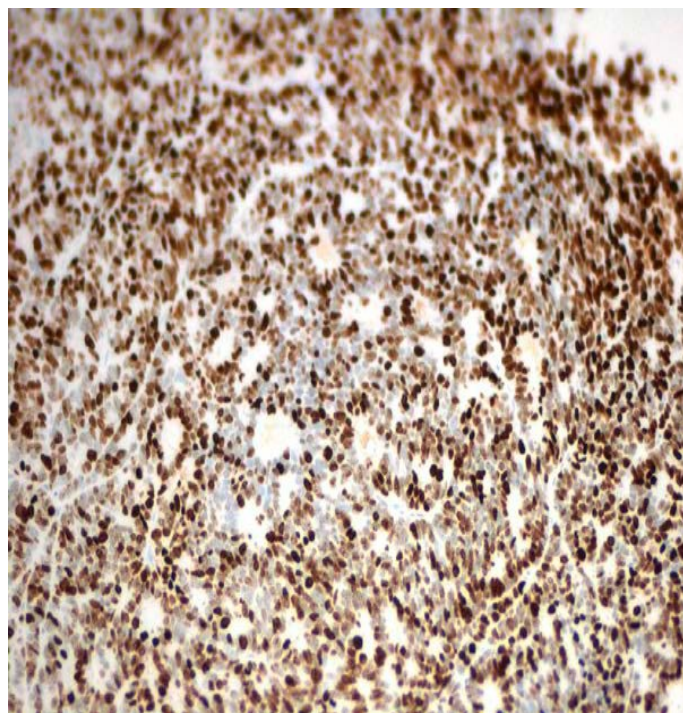


Figure S1



CWR22RV1 76%
Ki-67

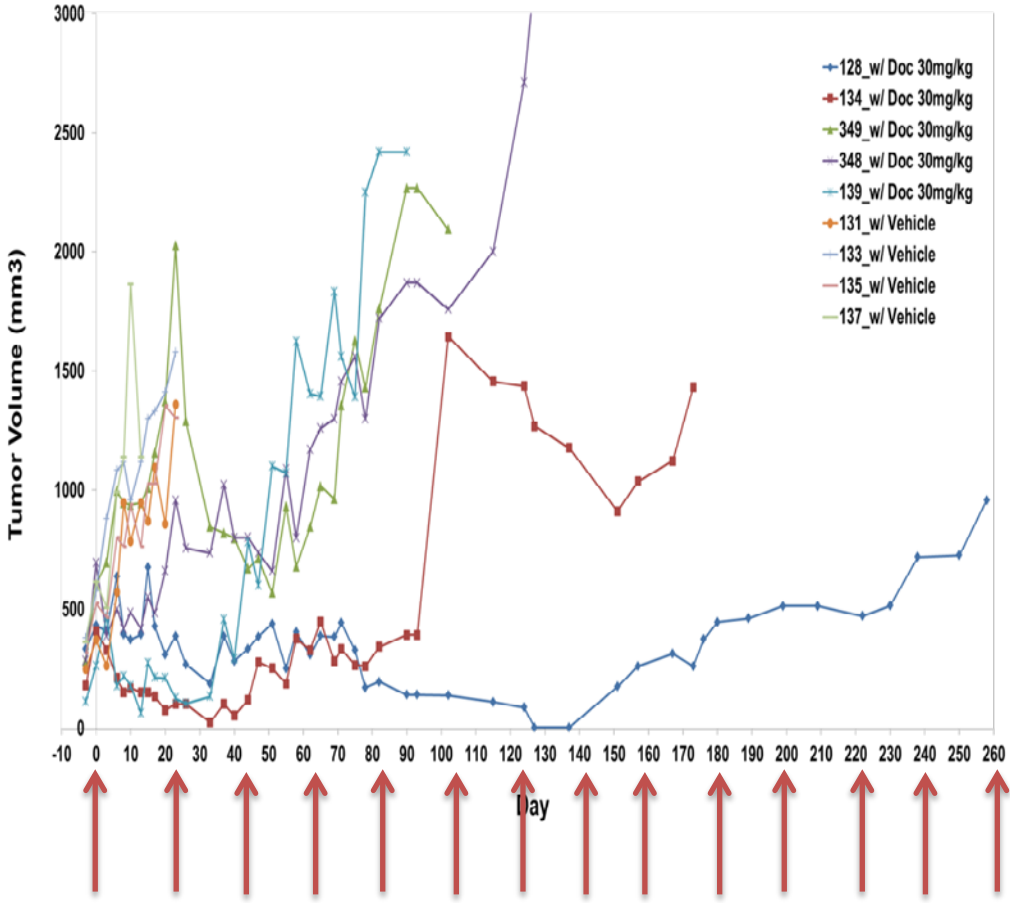


VCaP 75%
Ki-67

S1. Baseline Ki-67 staining of untreated xenografts from CWR22Rv1 and VCaP show Ki-67 percentage of 76% and 75%, respectively.

Figure S2

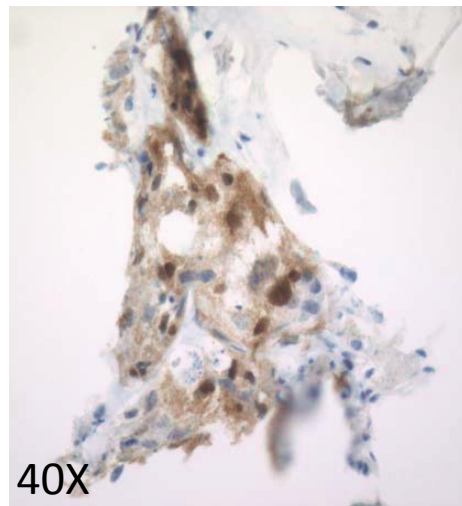
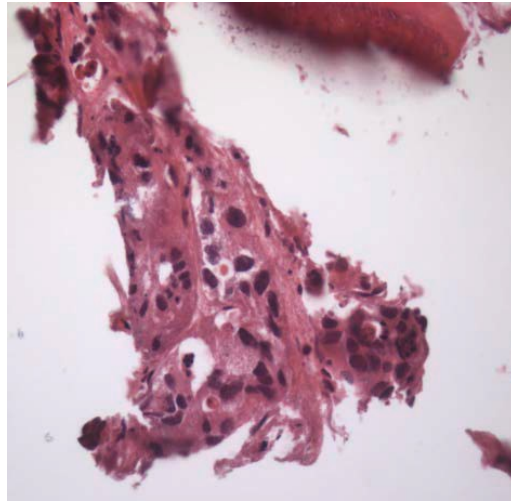
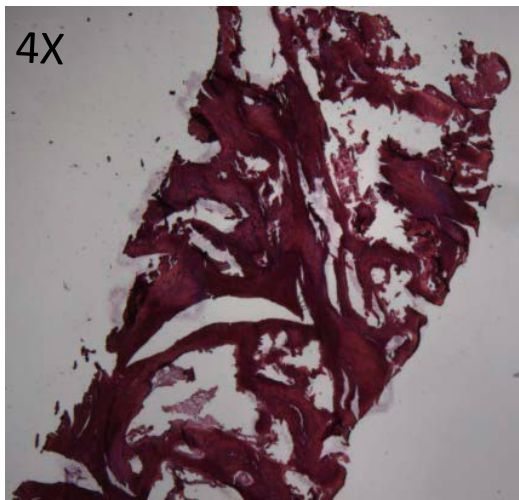
LuCaP35CR



30 mg/kg Docetaxel, i.p., once every three weeks as 1 cycle, 4~12 cycles
Vehicle, i.p. 1-2 cycles

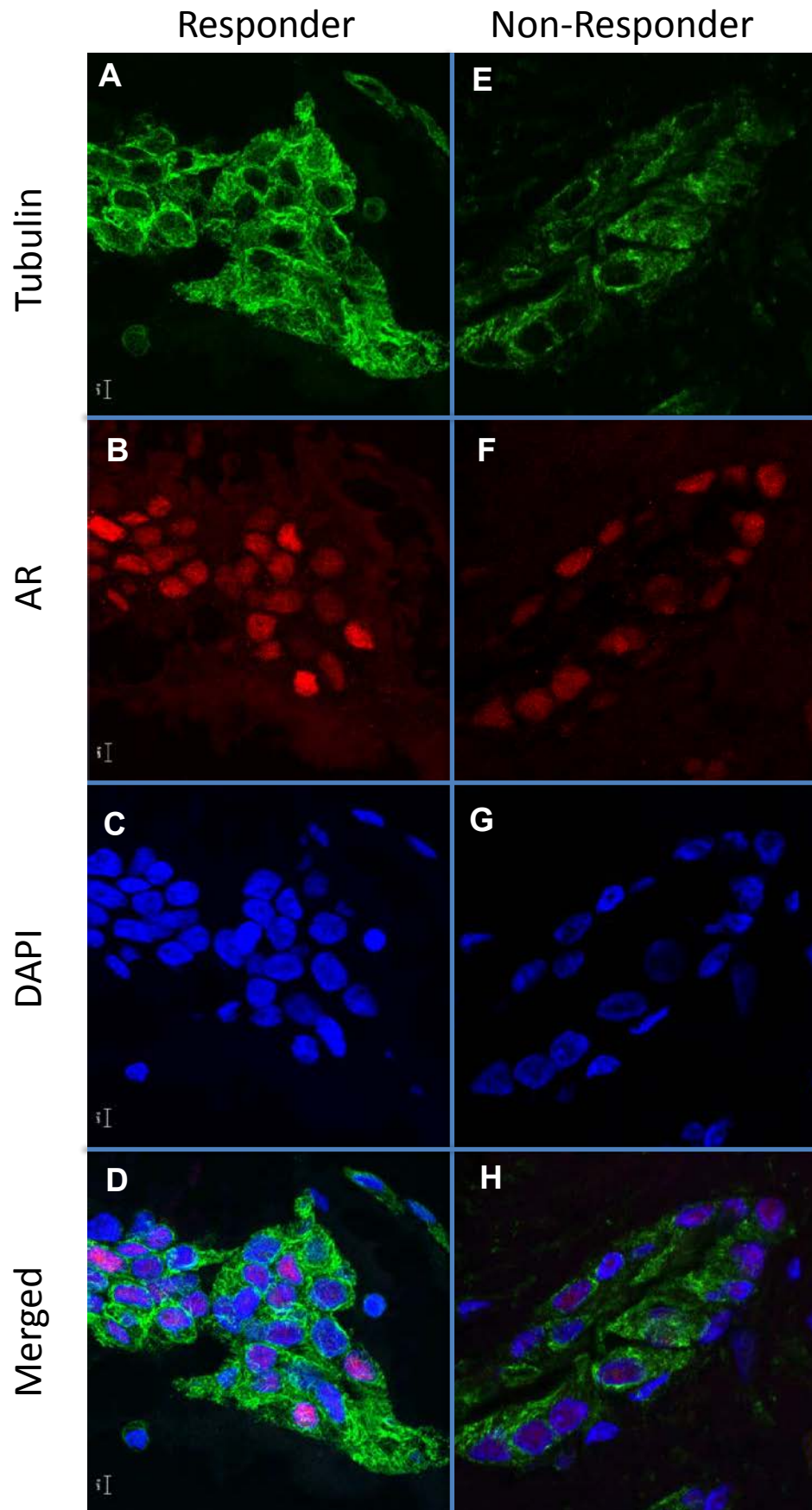
S2. Individual tumor growth curves of mice treated with vehicle or docetaxel. Tumor growth curves from 35LuCaP patient derived xenografts. Tumors 128 and 134 were long term responders to docetaxel. Tumors 349, 348 and 139 developed resistance to treatment and tumors were harvested 3 days after the last dose of docetaxel. The remaining tumors were untreated and only given a dose of docetaxel 3 days prior to sacrifice. These tumors were considered the sensitive tumors.

Figure S3



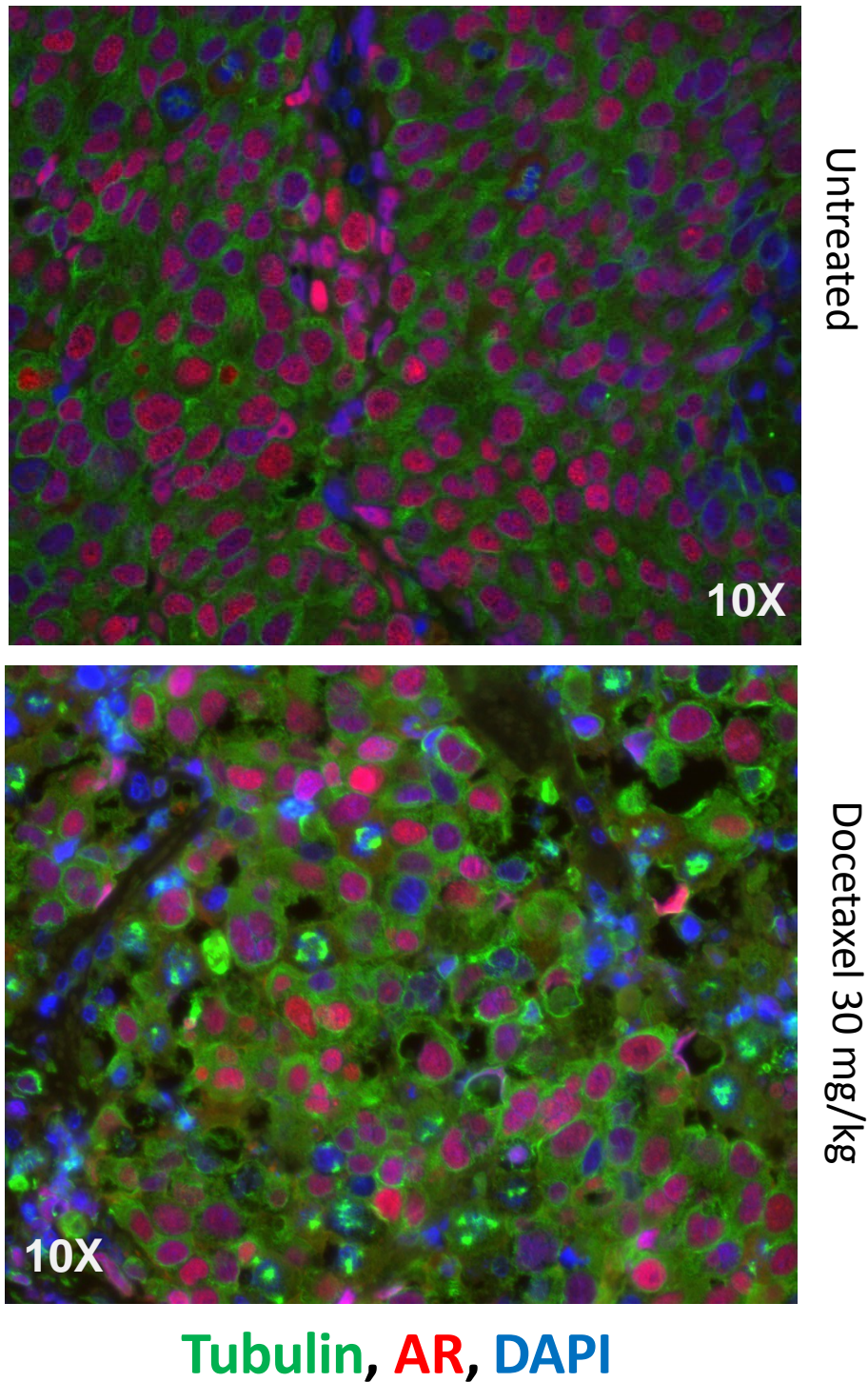
S3. Representative H&E of a bone biopsy (4X and 40X) is shown as well as AR IHC of the same biopsy specimen.

Figure S4



S4. Representative IF for tubulin and AR is shown in a non-responder (A-D) versus a responder (E-H) in biopsies taken 2-3 days after initial taxane treatment.

Figure S5



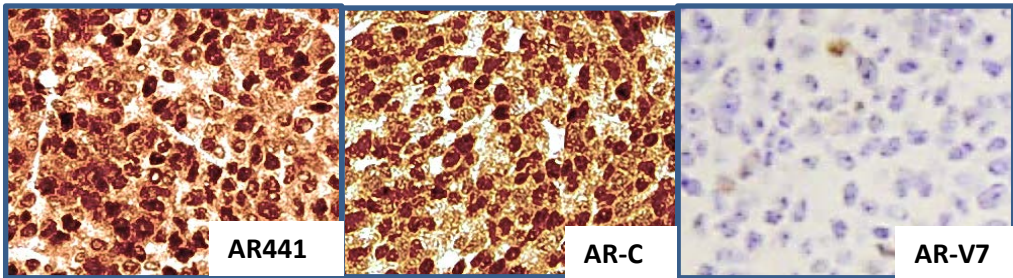
S5. Dual IF for tubulin and AR is shown in untreated and docetaxel treated xenografts.

Figure S6A

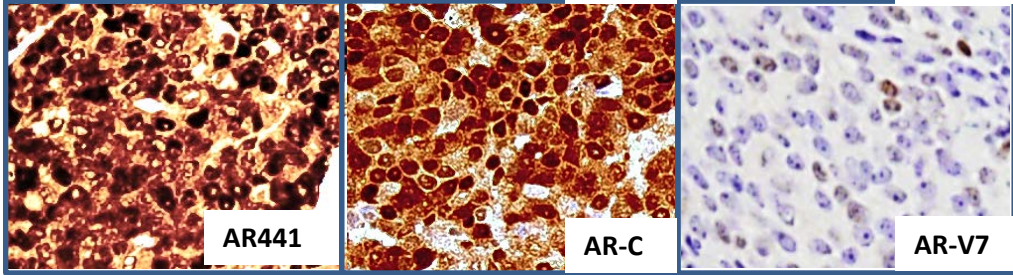
A LuCaP 35CR

A

Sensitive tumor
Biopsy
Before treatment

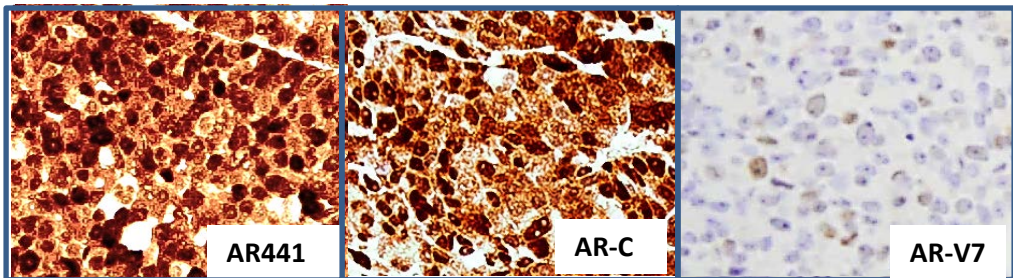


Sensitive tumor
after 3 day DOC
treatment



B

Resistant tumor
Biopsy
Before treatment



Resistant tumor
after 3 day
treatment

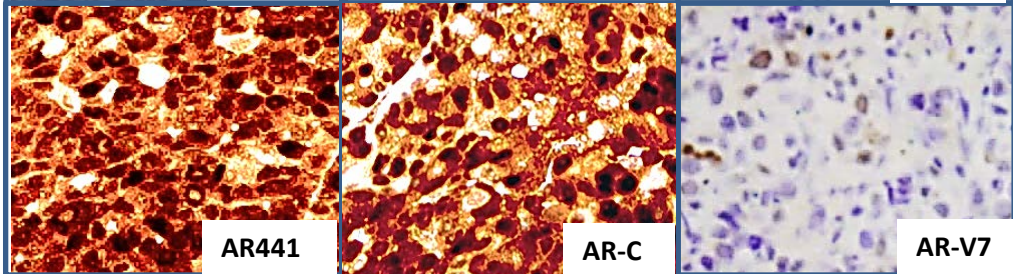
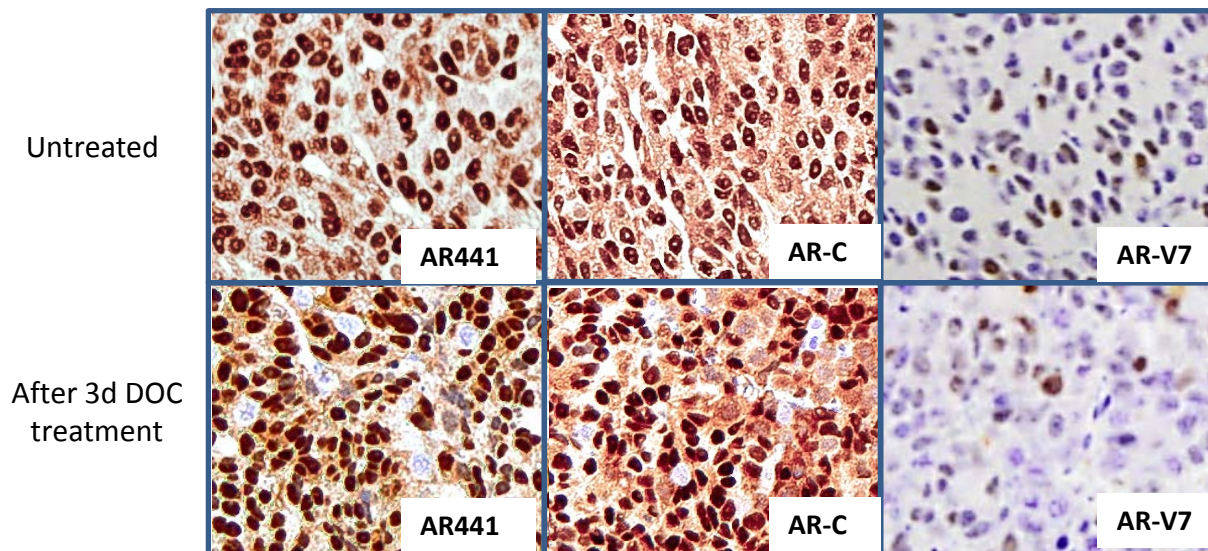


Figure S6A. Representative IHC of the status of full length AR and ARV7 in the docetaxel sensitive (A) and resistant (B) LuCaP 35CR tumors. Both sensitive tumor and resistant tumor were biopsied before treatment and subsequently treated with docetaxel for 3 days. After 3 days of treatment, tumors were harvested. The FFPE biopsy and tumor sections were stained with antibodies for N-terminal AR, C-terminal AR and ARV7.

Figure S6B

C

LuCaP 96CR



D

22Rv1

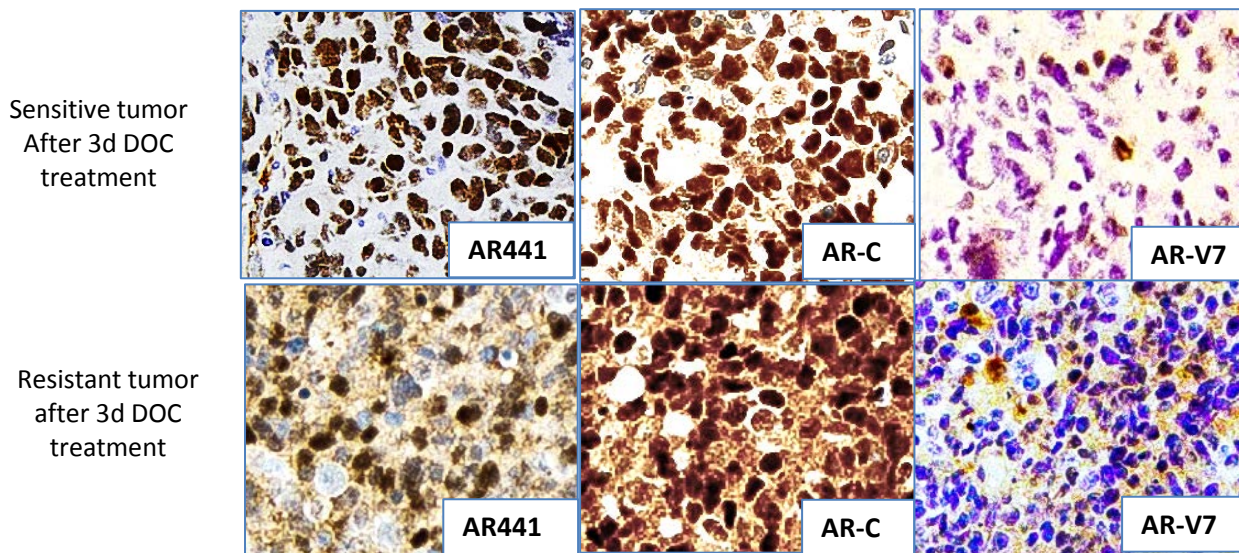


Figure S6B. Representative IHC of the status of full length AR and ARV7 in the LuCaP96CR (C) tumors, 22Rv1 (D) and DOC (untreated) were harvested. The remaining mice were treated with 3 days of docetaxel (DOC). IN the 22Rv1 model, mice bearing sensitive and resistant tumors were treated with DOC for 3 days and tumors harvested. The tumor sections were stained for N-terminal AR, C-terminal AR and ARV7..

Figure S7

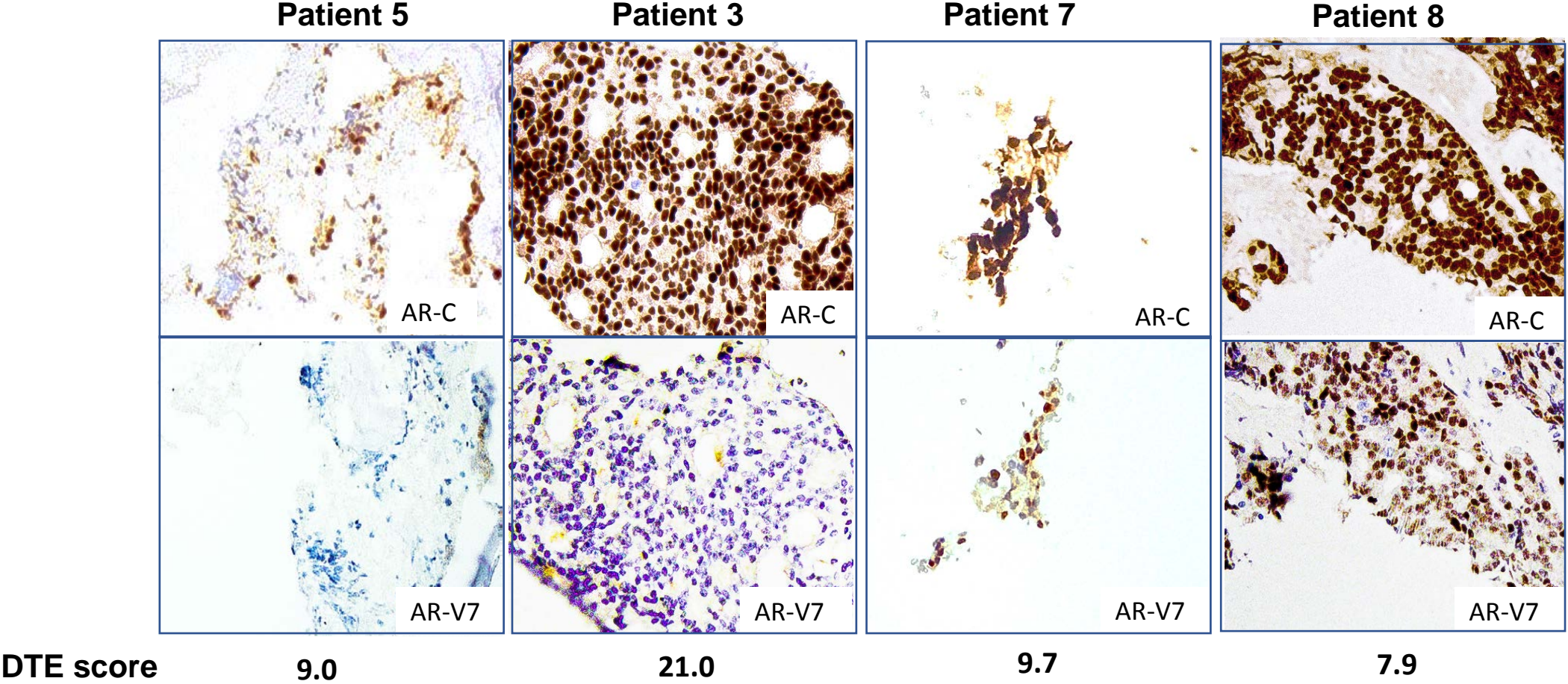


Figure S7. Representative IHC of full length AR and ARV7 in biopsies of patients treated with taxanes (Table 1). FFPE tumor sections were stained with AR441 antibody (Santa Cruz, sc-7305) for N-terminal AR, C-terminal AR and ARV7 respectively. The DTE scores are indicated for each patient.

Figure S8

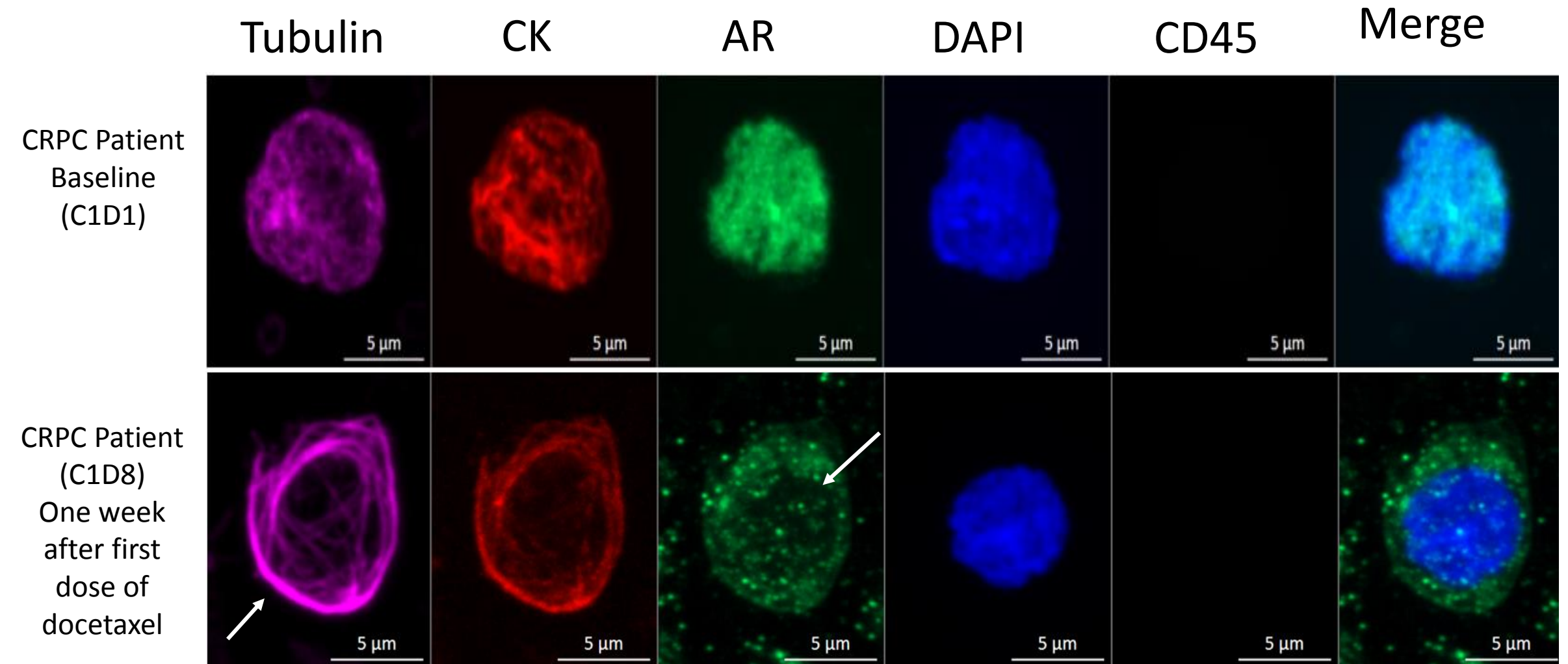


Figure S8. CTCs were defined as nucleated (DAPI+), pan-CK+, CD45- cells. Tubulin and AR staining was performed to address DTE. Arrows point to MT-bundling and decreased nuclear AR.