**Supplemental Fig 1: Characterization of the VCaP-ARv7 cell line**. VCaP-ARv7 cells were treated with vehicle (0.1% Ethanol), 10 nM R1881 or the indicated doses of doxycycline for 24 hours in medium with 10% charcoal stripped serum (CSS) for 24 hours followed by protein and RNA extraction for western blot and qPCR. A) Western Blot probed with AR441 antibody (upper), followed by antibody for β-actin (lower) using 5 µg protein extract per lane B) qPCR showing average of three replicates for canonical AR target gene, KLK3 and C) EDN2 relative to 18S (\* denotes p-value< 0.05, \*\* denotes p-value<0.01)

**Supplemental Fig 2: Alterations in individual CE lipids induced by AR, ARv7 and ARv567es**. Box plots show relative abundance (log2 summed normalized peak area) of individual lipids in cholesterol esters (CE) group, differing in carbon chain length and degree of unsaturation due to action of AR and the variants. (t-test comparison with respect to vehicle, \* denotes p-value <0.05 and \*\* denotes p-value <0.01)

**Supplemental Fig 3: Alterations in individual Lyso-PC lipids induced by AR, ARv7 and ARv567es**. Box plots show relative abundance (log2 summed normalized peak area) of individual lipids in Lysophosphatidyl cholines (Lyso-PC) group, differing in carbon chain length and degree of unsaturation due to action of AR and the variants. (t-test comparison with respect to vehicle, \* denotes p-value <0.05 and \*\* denotes p-value <0.01)