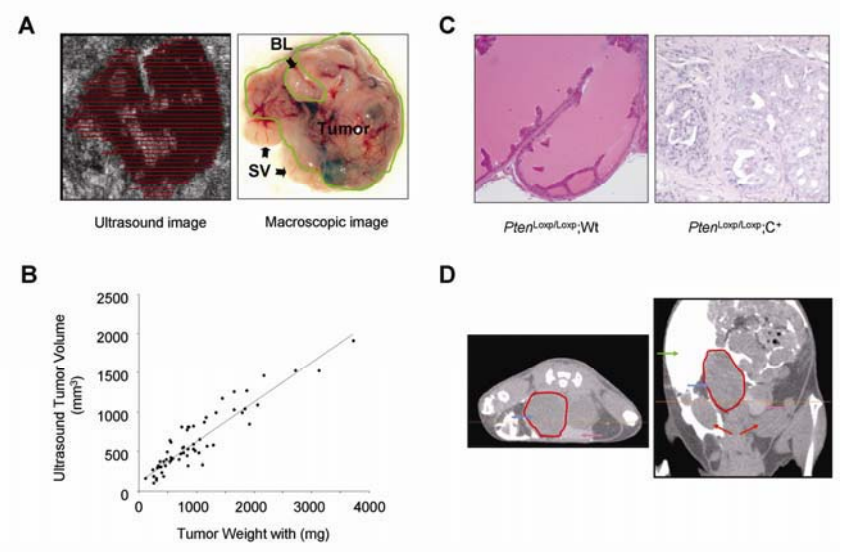
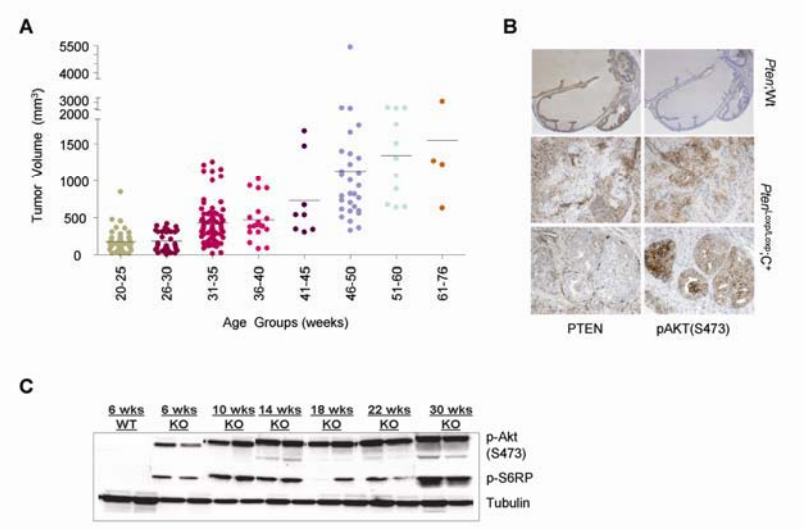
# Supplemental Figures

Zhang et al

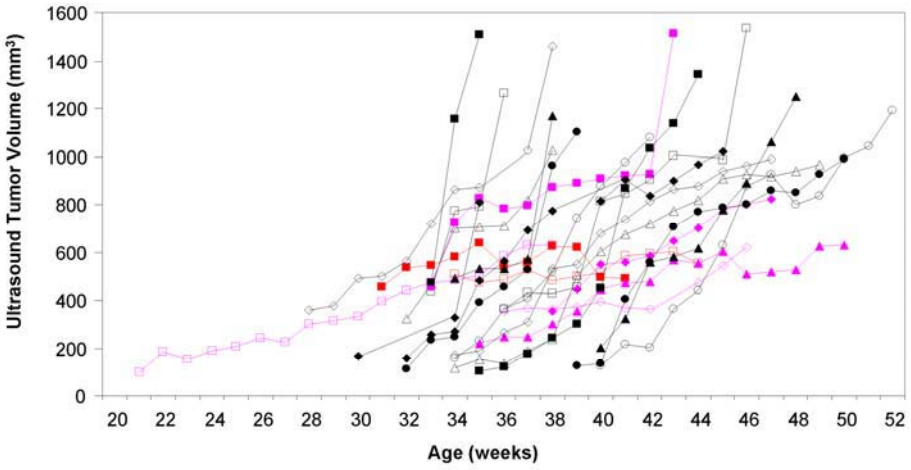
**Title:** Inhibition of Tumor Growth Progression by Anti-Androgens and mTOR inhibitor in a *Pten* Deficient Mouse Model of Prostate Cancer



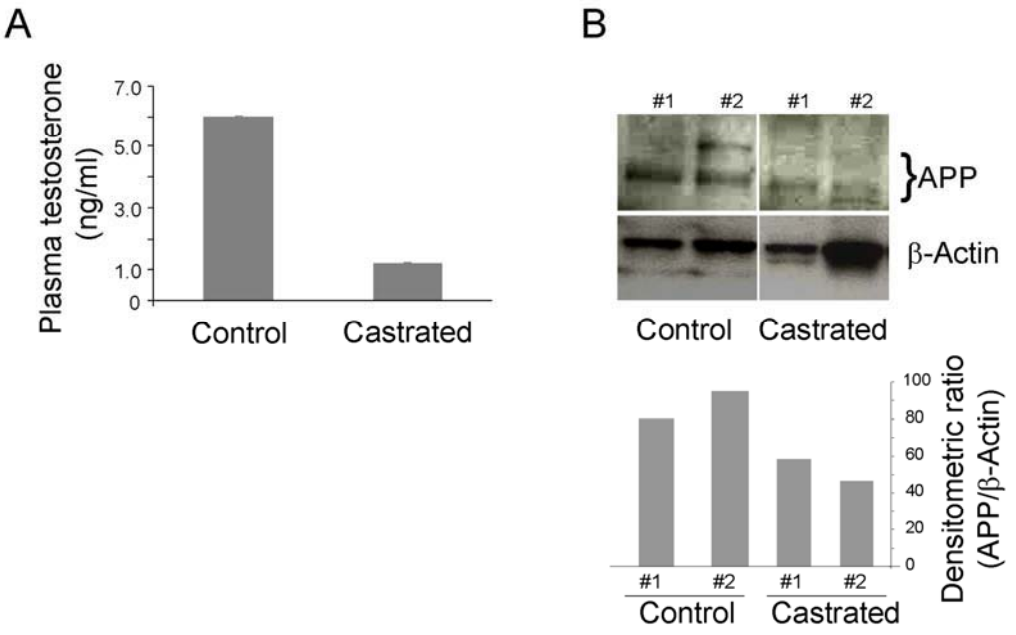

**Supplementary Figure 1.** Application of imaging techniques to detect prostate tumors in *Pten* deficient mouse model. *A*. a representative ultrasound coronal image (left) and post mortem photo (right) of a prostate tumor. BL – bladder; SV – seminal-vesicle. *B*. Correlation between tumor volumes measured by ultrasound and post mortem tumor weights. *C*. H&E staining of normal (left) prostate tissue and prostate tumor (right). Scale bar is 50 microns. *D*. micro-CT images of a prostate tumor from both transverse (left) and coronal (right) views using the GE eXplore Locus Ultra Pre-Clinical CT scanner (GE Healthcare). Contrast agent Omnipaque was injected into peritoneal cavity prior to performing CT scan. The closed red line highlights the tumor.




**Supplemental Figure 2.** Time dependent progression of tumor growth in *Pten* deficient prostate cancer model. *A*. Tumor volume was measured by ultrasound imaging in mice at various ages. The horizontal gray lines indicate average tumor volumes. *B*. Histological analysis of Pten and phospho-AKT (S473) in normal mouse prostate tissue (upper row), early stage (10 weeks of age, middle row), and late stage (18 weeks of age, lower row). Scale bar is 50 microns. *C*. Western blotting analysis of phospho AKT (S473) and p-S6RP in 6wks old normal prostate (WT) and *Pten* deleted (KO) prostate tumors at various ages as indicated.




**Supplemental Figure 3.** Tumor growth progression in *Pten* deficient prostate is heterogeneous**.** Tumor growth of individual mouse was measured by ultrasound imaging every week for approximately 24 weeks.




**Supplemental Figure 4.** Surgical castration decrease plasma testosterone levels and inhibits androgen targets. Tumor bearing mice were divided into two groups, one group was non-castrated (control) (n=6) and other mice (n=6) were surgically castrated. Eight weeks following castration, mice were euthanized, plasma and tumors were harvested. *A*. plasma testosterone level was determined by ELISA. *B*. Western blotting analysis of amyloid precursor protein (APP) in tumors from control and surgically castrated mice. β-Actin was used as a loading control (upper panel). Intensity of individual bands was measured, ratio of APP and β-Actin was determined (lower panel).