**Supplementary Fig. S1.** Leelamine (LLM) treatment decreased number of neutral lipid droplets in LNCaP and PC-3 prostate cancer cells but not in immortalized RWPE-1 normal prostate epithelial cell line. Confocal microscopy images for BODIPY staining depicting neutral lipid droplets in LNCaP, PC-3, and RWPE-1 cells after 24 hours of treatment with ethanol (control) or the indicated concentrations of LLM or Etomoxir (Etx).



**Supplementary Figure S2: A,** Hematoxylin and eosin-stained images of vital organs from a representative control and leelamine (LLM)-treated mouse. **B,** Wet weight of vital organs from control and LLM-treated mice.



**Supplementary Fig. S3.** Correlation of *SREBF1* (*SREBP1*) expression with that of key fatty acid synthesis genes in prostate tumors from TCGA (n=497). Pearson test was used to determine the correlation coefficient and statistical significance.



**Supplementary Fig. S4.** Correlation of *SREBF1* (*SREBP1*) expression with that of key fatty acid synthesis genes in normal prostate tissue from TCGA (n=52). Pearson test was used to determine the correlation coefficient and statistical significance.

