

Supplementary Figures

Figure S1: MTT assay results for treatment of PC-3 and LNCaP cells with TGF- β for 24 hours (All the experiments were done in triplicates) *P*-value at <0.05 was considered to be statistically significant.

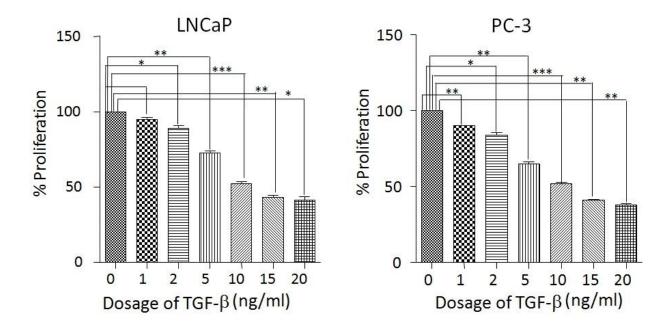


Figure S2: TGF- β downregulates epithelial marker expression (E-cadherin) and promotes mesenchymal marker expressions (N-cadherin and Vimentin). Quantitative RT-PCR analysis showing mRNA expressions of EMT markers in (a) androgen dependent LNCaP and (b) androgen independent PC-3 Prostate cancer cell lines in naïve and post TGF- β treatment conditions. The real-time PCR data are normalized to the β -actin reference gene and were analyzed by the comparative CT method. *P*-value at <0.05 was considered to be statistically significant. (c) Western blot data showing the expression of EMT markers (E-cadherin and N-cadherin) in LNCaP and PC-3 Prostate cancer cell lines in naïve and post TGF- β treatment conditions using β -actin as internal control.

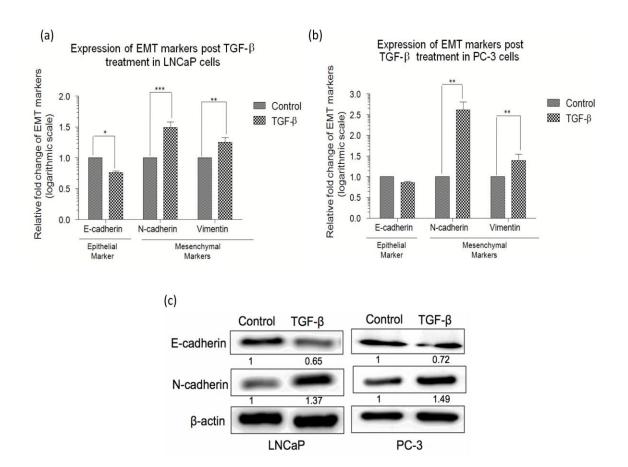


Figure S3: Network correlation of most deregulated pathways in Androgen dependent LNCaP cell line (The Purple and Pink dots represent the co-modulated functions by identified proteins and the grey lines represent the connection between the functions).

CDK-mediated phosphorylation and remova	ul of Cdc6 p53-Dependent	G1 DNA Damage Response	Activation of NF-kappaB in B Cells
Ubiquitin-dependent degradation of Cyclin D	Stabilization of p53	CDT1 association with the CD	
p53-Independent G1/S DNA damage checkpo	Activation of APC/C an Metabolism of RNA		degradation of Securin
Destabilization of mRNA by AUF1 (hnRNP D0		vated PAK-2p34 by proteasome m	[] [] [] []
Signaling by Wnt Metabolism of nu Fatty acid, triacylglycerol, and ketone body	Reta ovidation of a	egradation of beta-catenin by the d almitoyl-CoA to myristoyl-CoA	Regulation of DNA replication
Beta oxidation of myristoyl-CoA to lauroyl-CoA Purine metabolism Removal of lice	Beta oxidation of hexandersing factors from origins	SCF(Skp2)-mediated degradation yl-CoA to butanoyl-CoA Antigen processing: Ubiquiting	mRNA Splicing ation & Proteasome degradation
Beta oxidation of butanoyl-CoA to acetyl-Co	Cyclin A:Cdk2-associa mRNA Splicing - Major F	ated events at S phase entry Pathway Ubiquitin-depe	Vif-mediated degradation of APOBEC3G ndent degradation of Cyclin D1
Mitochondrial Fatty Acid Beta-Oxidation	Ubiquitin Mediated Degradat	on of Phosphorylated Cdc25A	G1/S DNA Damage Checkpoints
Beta oxidation of decanoyl-CoA to octanoyl-C		mitochondrial fatty ac diated degradation of mitotic protei	d beta-oxidation of saturated fatty acids
APC/C:Cdh1 mediated degradation of Cdc20			mRNA Processing
Beta oxidation of octanoyl-CoA to hexanoyl-Co	A Regulation of ornithine	decarboxylase (ODC)	Acyl chain remodeling of CL
mitochondrial fatty acid beta-oxidation of unsatu	urated fatty acids Beta oxid	dation of lauroyl-CoA to decanoyl-C	
Metabolism of lipids and lipoproteins	Activation of BAD and translocation	n to mitochondria	vation of BH3-only proteins
Cdc20:Phospho-APC/C mediated degradation	on of Cyclin A Processing of C	apped Intron-Containing Pre-mRN	itching of origins to a post-replicative state A dent G1/S DNA damage checkpoint
Autodegradation of Cdh1 by Cdh1:APC/C	Regulation of mRNA Stabilit	y by Proteins that Bind AU-rich Elei	ments Glycolysis
Metabolism Vpu mediated degrad	dation of CD4 Tetrahydrobi	opterin (BH4) synthesis, recycling,	salvage and regulation
Keratan sulfate/keratin metabolism	fembrane Trafficking Regulation	of actin dynamics for phagocytic cu	up formation Host Interactions of HIV factors
	eratan sulfate degradation	ulin effects increased synthesis of	
Activation of calmity		Transport of Ribonucleoprotein	
By docume vectors biogenesis	ocation of GLUT4 to the Plasma Membr	TOTAL SERVICE	ciated events during G1/S transition
NEP/NS2 Interacts with the Cellular Export M	lachinery Branched-chain a	mine acid catabolism	Signaling by Hippo h target proteins during biosynthesis
Metabolism of nitric oxide eNOS	activation and regulation Antivir	Association of Inc/CCT with	
Export of Viral Ribonucleoproteins from Nucleu		nterconversion (transamination)	Nuclear import of Rev protein
Metabolism of carbohydrates Citri	ic acid cycle (TCA cycle)	Apoptosis p53-Independe	ent DNA Damage Response
Loss of proteins required for interphase microtub	pule organization A from the centrosome	Orc	removal from chromatin
Pyruvate metabolism and Citric Acid (TCA) cyc	le Pentose phosphate pat	hway (hexose monophosphate shu	
ISG15 antiviral mechanism Gluco	oneogenesis ER-Phagosom	e pathway SCF-	beta-TrCP mediated degradation of Emi1
Cross-presentation of soluble exogenous	antigens (endosomes)	Loss of NIp from mitotic centrosom	nes Regulation of Apoptosis
Assembly of the pre-replicative comp	plex Metabolism of amino	acids and derivatives	sutodegradation of the E3 ubiquitin ligase COP1

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Figure S4: Network correlation of most deregulated pathways in Androgen independent PC-3 cell line (The Purple and Pink dots represent the co-modulated functions by identified proteins and the grey lines represent the connection between the functions).

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Cross-presentation of soluble exogenous antigens (endosomes)
                                                                                              Ubiquitin-dependent degradation of Cyclin D
                                mRNA Splicing
          Cell Cycle, Mitc
                                                         Cell Cycle
                                                                             Autodegradation of the E3 ubiquitin ligase COP1 Translation
                            Signaling by Wnt
                                                                                                 Regulation of ornithine decarboxylase (ODC)
                                                                   Stabilization of p53
      Degradation of beta-catenin by the destruction complex
                                                                                                              Regulation of DNA replication
                                                Ubiquitin Mediated Degradation of Phosphorylated Cdc25A
     Assembly of the pre-replicative complex
                                                                                                                   Apoptosis
                                                                                                                                   Nephrin interactions
                                                      Ubiquitin-dependent degradation of Cyclin D1
                                   M/G1 Transition
                                                               Antigen processing-Cross presentation
                                                                                                         Cap dependent Translation Initiation
              Removal of licensing factors from origins
                                                                           SCF-beta-TrCP mediated degradation of Emil
                S Phase
                                                                                                                                  M Phase
                                          Activation of NF-kappaB in B Cells
                                                                                      Vif-mediated degradation of APOBEC3G
                  Hormone-sensitive lipase (HSL)-mediated triacylglycerol hydrolysis
                                                                                      CDT1 association with the CDC6:ORC:origin complex
                                                                                                                                         mRNA Processing
                                                                                        TGF-beta receptor signaling activates SMADs
                   Cdc20:Phospho-APC/C mediated degradation of Cyclin A
      APC/C Cdh1 mediated degradation of Cdc20 and other APC/C Cdh1 targeted prefeins in late mitosis/early G1
                                                                                                                   Orc1 removal from chromatin
                                                Synthesis of DNA Apoptosis induced DNA fragmentation
               Intrinsic Pathway for Apoptosis
                                                                                                                Switching of origins to a post-replicative state
                                                                   Activation of DNA fragmentation factor
            CDK-mediated phosphorylation and removal of Cdc6
                                                                                       Regulation of mRNA Stability by Proteins that Bind AU-rich Elements
                              Signaling by TGF-beta Receptor Complex
                                                                                                                 p53-Independent G1/S DNA damage checkpoint
                    Vpu mediated degradation of CD4
                                                                                Apoptotic execution phase
                                                  Downstream Signaling Events Of B Cell Receptor (BCR)
                                                                                                                    SCF(Skp2)-mediated degradation of p27/p21
        G1/S DNA Damage Checkpoints
                                                                                                                   Regulation of mitotic cell cycle
          p53-Independent DNA Damage Response
p63-Dependent G1/S DNA damage checkpoint
                                                                                    Cell Cycle Checkpoints
                                                                                   Regulation of activated PAK-2p34 by proteasome mediated degradation
                                                          Regulation of APC/C activators between G1/S and early anaphase
                                                                                                                               tRNA Aminoacylation
               3'-UTR-mediated translational regula
                                                  utodegradation of Cdh1 by Cdh1:APC/C
                                                                                              GTP hydrolysis and joining of the 60S ribosomal subunit
                      Mitotic M-M/G1 phases
                                                                                          Cytosolic tRNA aminoacylation
                                                     Eukaryotic Translation Elongation
                                                                                                Synthesis and interconversion of nucleotide di- and triphosphates
                                                          brane Trafficking
         Cyclin A:Cdk2-associated events at Sphase
                                                              Pyruvate metabolism and Citric Acid (TCA) cycle
                                                                                                                             Regulation of Apoptosis
               ER-Phagosome dathwayediated translational silencing of Ceruloplasmin expression
                                                                                                               Metabolism of amino acids and derivatives
                                                  APC/C-mediated degradation of cell cycle proteins
                                                                                                                        DNA Replication Pre-Initiation
              Eukaryotic Translation Initiation
                                                  SRP-dependent cotranslational protein targeting to membrane
                      Peptide chain elongation
                                                   mRNA Splicing - Major Pathway
                                                                                       Insulin effects increased synthesis of Xylulose-5-Phosphate
        Influenza Viral RNA Transcription and Replication Viral mRNA Translation
                                                                                                         Destabilization of mRNA by AUF1 (hnRNP D0)
                                                                Influenza Infection
                                                                                         p53-Dependent G1 DNA Damage Response
                   Formation of the ternary complex, and subsequently, the 43S complex
                                                                                          Processing of Capped Intron-Containing Pre-mRNA
        Host Interactions of HIV factors Metabolism of proteins Translation initiation complex formation
                                                                                                                     Mitotic Metaphase and Anaphase
          Protein folding
                                    DNA Replication
                                                                                                 Signaling by the B Cell Receptor (BCR)
                                                                     G1/S Transition
  Cooperation of Prefoldin and TriC/CCT in actin and tubulin folding
                                                                                        Nonsense Mediated Decay Independent of the Exon Junction Complex
  Activation of the mRNA upon binding of the cap-binding complex and eIFs, and subsequent binding to 43S
                                                                                                                        Nonsense-Mediated Decay
 Cyclin E associated events during G1/S transition
                                                                                       APC/C:Cdc20 mediated degradation of mitotic proteins
                                                 Separation of Sister Chromatids
     MHC class II antigen presentation
                                                                                            Antigen processing: Ubiquitination & Proteasome degradation
                                                                            Nonsense Mediated Decay Enhanced by the Exon Junction Complex
   Eukaryotic Translation Termination
                                              Ribosomal scanning and start codon recognition 
Formation of a pool of free 40S subunits 
sease Gene Expression
APC/C:Cdc20 mediated degradation of Securin
                                                                                                                           ive Immune System
                                                                                                      Metabolism of RNA
                                                                                                                              snRNP Assembly
                                            Disease
                                                                                                                    Influenz
                                                                                                                            Life Cycle
       Metabolism of mRNA
                                   Mitotic Anaphase
                                                              Mitotic G1-G1/S phases
                                                                                          Class I MHC mediated antigen processing & presentation
 Activation of APC/C and APC/C:Cdc20 mediated degradation of mitotic proteins
                                                                                        Presentation: Folding, assembly and peptide loading of class I MHC
                                          ER to Golgi Transport
           Axonal growth stimulation
                                                                                                            COPII (Coat Protein 2) Mediated Vesicle Transport
                                                                        Metabolism of non-coding RNA
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Figure S5: Protein–protein interactions (PPI) of the differentially expressed proteins in prostate cancer. Colored lines indicate the type of inter- action evidence between nodes

