

LIST OF FIGURES

FIGURE 1.1 ANATOMY OF PROSTATE GLAND	05
FIGURE 1.2 CELLULAR TYPE OF PROSTATE AND ITS MARKERS	05
FIGURE 1.3 SEMEN VOLUME PORTION DISTRIBUTION	07
FIGURE 1.4 PROGRESSION OF PROSTATE CANCER	09
FIGURE 1.5 A SCHEMATIC DEPICTION OF METASTASIS OF PROSTATE CANCER CELLS TO THE BODY ORGANS	10
FIGURE 6 EMT-DEPENDENT FORMATION OF CTCs	10
FIGURE 1.7 PATHWAYS OF ANDROGEN-INDEPENDENT PROSTATE CANCER	16
FIGURE 1.8 ANDROGEN RECEPTOR STRUCTURE	16
FIGURE 1.9 CASPASE-DEPENDENT EXTRINSIC APOPTOTIC PATHWAY	18
FIGURE 1.10 THE CASPASE-INDEPENDENT APOPTOTIC PATHWAY	18
FIGURE 1.11 CASPASE-DEPENDENT INTRINSIC APOPTOTIC PATHWAY	19
FIGURE 1.12 AUTOPHAGY MECHANISM AND ITS REGULATION	20
FIGURE 1.13 METFORMIN UPTAKE AND ELIMINATION	27
FIGURE 1.14 - METFORMIN METABOLISM IN CANCER CELLS	29
FIGURE 1.15 METFORMIN ON CANCER METABOLISM	30
FIGURE 1.16 DIFFERENT PCA IN VITRO MODELS BASED ON AR HETEROGENEITY	32
FIGURE 3.1) CELL VIABILITY ASSAY OF METFORMIN	40
FIGURE 3.2 COLONY FORMATION AND MIGRATION ASSAY OF METFORMIN	43-44
FIGURE 3.3 AR EXPRESSION EVALUATION	45
FIGURE 3.4 ARV7 EXPRESSION EVALUATION	45
FIGURE 3.5 MRNA EXPRESSION EVALUATION OF ARV7 AND PSA	46
FIGURE 4.1 EVALUATION OF LC3 AN AUTOPHAGIC MARKER:	55
FIGURE 4.2 EVALUATION OF C-CASPASE3 EXPRESSION	58-61
FIGURE 4.3 EVALUATION OF C-PARP1	62-64
FIGURE 4.4 EVALUATION OF ANNEXIN-PI RATIO	65
FIGURE 4.5 CELL VIABILITY ASSAY ON 22RV1 & PC3	66-67
FIGURE 4.6 STARVATION AND R1881 EFFECT ON VIABILITY	67-68
FIGURE 4.7 STEROID HORMONE EFFECT ON VIABILITY	69
FIGURE 4.8 STARVATION EFFECT ON %ROS	70
FIGURE 4.9 METFORMIN EFFECT ON ROS	71
FIGURE 5.1 CELL VIABILITY ASSAY OF METFORMIN	82
FIGURE 5.2 R1881 EFFECT ON VIABILITY	83
FIGURE 5.3 STEROID HORMONE EFFECT ON VIABILITY	84
FIGURE 5.4 COLONY FORMATION ASSAY OF SWERTIAMARIN	85
FIGURE 5.5 COLONY FORMATION ASSAY OF SWERTIAMARIN	86-87
FIGURE 5.6 MIGRATION ASSAY OF SWERTIAMARIN	88
FIGURE 5.7 AR EXPRESSION EVALUATION	89
FIGURE 5.8 RELATIVE EXPRESSION OF C-CASPASE3 AND C-PARP1	90-91
FIGURE 5.9 ROS LEVEL ESTIMATION FOR SWERTIAMARIN	92