Supplementary Table 2: Ingenuity Canonical Pathways: Vehicle Sham Contrast			
Canonical Pathways	**p-value**	**Ratio**	**Genes**
24 h post-TBI			
Cholesterol Biosynthesis I	1.17E-07	1.25E-01	SQLE,HSD17B7,MSMO1,LSS,CYP51A1
Cholesterol Biosynthesis II (via 24,25-dihydrolanosterol)	1.17E-07	1.25E-01	SQLE,HSD17B7,MSMO1,LSS,CYP51A1
Cholesterol Biosynthesis III (via Desmosterol)	1.17E-07	1.25E-01	SQLE,HSD17B7,MSMO1,LSS,CYP51A1
Zymosterol Biosynthesis	1.95E-05	1.36E-01	HSD17B7,MSMO1,CYP51A1
LXR/RXR Activation	5.75E-04	4.41E-02	SCD,LY96,C4B (includes others),IL1R1,LBP,CYP51A1
GADD45 Signaling	6.17E-04	1.36E-01	PCNA,CDKN1A,CCND1
Aryl Hydrocarbon Receptor Signaling	1.58E-03	3.73E-02	GSTA3,Gstm3,NQO1,CDKN1A,CCND1,MGST3
Glutathione-mediated Detoxification	1.74E-03	6.67E-02	GSTA3,Gstm3,MGST3
Pathogenesis of Multiple Sclerosis	2.75E-03	2.22E-01	CXCL10,CXCL9
LPS/IL-1 Mediated Inhibition of RXR Function	3.31E-03	2.93E-02	GSTA3,LY96,SLC27A5,Gstm3,IL1R1,LBP,MGST3
Circadian Rhythm Signaling	3.72E-03	8.11E-02	PER3,ARNTL,PER2
IL-9 Signaling	4.07E-03	7.5E-02	SOCS3,STAT3,JAK3
Mevalonate Pathway I	4.37E-03	7.14E-02	ACAT2,IDI1
IL-10 Signaling	4.47E-03	5.13E-02	SOCS3,STAT3,IL1R1,LBP
JAK/Stat Signaling	4.47E-03	5.71E-02	SOCS3,CDKN1A,STAT3,JAK3
IL-6 Signaling	5.50E-03	4.03E-02	SOCS3,STAT3,IL1R1,LBP,MAPKAPK2
VDR/RXR Activation	6.61E-03	4.94E-02	CXCL10,PPARD,CDKN1A,HSD17B2
NRF2-mediated Oxidative Stress Response	6.92E-03	3.12E-02	GSTA3,AKR7A3,Gstm3,NQO1,MGST3,EPHX1
Methylglyoxal Degradation III	7.41E-03	8.7E-02	AKR7A3,FAM213B
p53 Signaling	7.59E-03	4.17E-02	PCNA,CDKN1A,GNL3,CCND1
iNOS Signaling	8.13E-03	5.66E-02	LY96,LBP,JAK3
Lanosterol Biosynthesis	1.00E-02	3.33E-01	LSS
Estrogen Biosynthesis	1.55E-02	4.41E-02	HSD17B7,HSD17B2,CYP51A1
Cell Cycle: G1/S Checkpoint Regulation	1.55E-02	4.55E-02	CDKN1A,GNL3,CCND1
ErbB2-ErbB3 Signaling	1.70E-02	5E-02	STAT3,JAK3,CCND1
Estrogen-mediated S-phase Entry	1.86E-02	7.14E-02	CDKN1A,CCND1
Pancreatic Adenocarcinoma Signaling	1.91E-02	3.33E-02	CDKN1A,STAT3,JAK3,CCND1
Role of JAK1 and JAK3 in γc Cytokine Signaling	2.00E-02	4.48E-02	SOCS3,STAT3,JAK3
Epoxysqualene Biosynthesis	2.00E-02	1.11E-01	SQLE
CD40 Signaling	2.09E-02	4.29E-02	STAT3,MAPKAPK2,JAK3
Acute Phase Response Signaling	2.09E-02	2.81E-02	SOCS3,C4B (includes others),STAT3,IL1R1,LBP
Estrogen-Dependent Breast Cancer Signaling	2.34E-02	4.17E-02	HSD17B7,CCND1,HSD17B2
IL-22 Signaling	2.40E-02	8E-02	SOCS3,STAT3
IL-15 Production	2.63E-02	6.45E-02	PTK6,JAK3
Role of JAK family kinases in IL-6-type Cytokine Signaling	2.63E-02	7.41E-02	SOCS3,STAT3
Catecholamine Biosynthesis	3.02E-02	6.67E-02	DDC
Trans, trans-farnesyl Diphosphate Biosynthesis	3.02E-02	1E-01	IDI1
Xenobiotic Metabolism Signaling	3.39E-02	2.01E-02	GSTA3,Ces2g,Gstm3,NQO1,MGST3,Ces2b/Ces2c
MIF-mediated Glucocorticoid Regulation	3.63E-02	4.76E-02	LY96,MIF

FXR/RXR Activation	3.89E-02	2.97E-02	SLC27A5,PKLR,G6PC
Cell Cycle Regulation by BTG Family Proteins	3.89E-02	5.56E-02	CCND1,CCRN4L
Role of JAK2 in Hormone-like Cytokine Signaling	3.89E-02	5.56E-02	SOCS3,STAT3
Spermine and Spermidine Degradation I	3.98E-02	7.14E-02	SAT1
Eumelanin Biosynthesis	3.98E-02	9.09E-02	MIF
Myo-inositol Biosynthesis	3.98E-02	1.25E-01	ISYNA1
TR/RXR Activation	4.17E-02	3.12E-02	SREBF2,G6PC,ME1
Hepatic Fibrosis / Hepatic Stellate Cell Activation	4.17E-02	2.74E-02	LY96,CXCL9,IL1R1,LBP
Prostate Cancer Signaling	4.27E-02	3.06E-02	SRD5A1,CDKN1A,CCND1
Oncostatin M Signaling	4.37E-02	5.71E-02	STAT3,JAK3
Stearate Biosynthesis I (Animals)	4.57E-02	4E-02	SLC27A5,FAM213B
Serotonin and Melatonin Biosynthesis	4.90E-02	6.25E-02	DDC
Glycogen Biosynthesis II (from UDP-D-Glucose)	4.90E-02	8.33E-02	UGP2
MIF Regulation of Innate Immunity	5.62E-02	4E-02	LY96,MIF
Retinol Biosynthesis	5.62E-02	3.28E-02	Ces2g,Ces2b/Ces2c
Role of Macrophages, Fibroblasts and Endothelial Cells in Rheumatoid Arthritis	5.62E-02	1.8E-02	SOCS3,MIF,STAT3,IL1R1,MAPKAPK2,CCND1
Thyroid Cancer Signaling	5.89E-02	4.76E-02	CXCL10,CCND1
Superoxide Radicals Degradation	5.89E-02	1.25E-01	NQO1
Melanoma Signaling	6.46E-02	4.35E-02	CDKN1A,CCND1
Acetone Degradation I (to Methylglyoxal)	6.46E-02	3.64E-02	FAM213B,CYP51A1
Phosphatidylethanolamine Biosynthesis II	6.92E-02	5.56E-02	CHKA
Phosphatidylcholine Biosynthesis I	6.92E-02	5.88E-02	CHKA
HGF Signaling	7.08E-02	2.86E-02	CDKN1A,STAT3,CCND1
Toll-like Receptor Signaling	7.59E-02	3.64E-02	LY96,LBP
Ketolysis	7.76E-02	5.56E-02	ACAT2
Role of CHK Proteins in Cell Cycle Checkpoint Control	8.51E-02	3.57E-02	PCNA,CDKN1A
Oleate Biosynthesis II (Animals)	8.71E-02	5.26E-02	SCD
Hereditary Breast Cancer Signaling	8.91E-02	2.34E-02	NPM1,CDKN1A,CCND1
Breast Cancer Regulation by Stathmin1	9.55E-02	1.93E-02	STMN1,TUBA1A,CDKN1A,TUBB2A
p38 MAPK Signaling	9.55E-02	2.56E-02	DUSP1,IL1R1,MAPKAPK2
Glutaryl-CoA Degradation	9.55E-02	4.17E-02	ACAT2
Ketogenesis	9.55E-02	4.76E-02	ACAT2
Guanosine Nucleotides Degradation III	9.55E-02	4.55E-02	NT5C3A
Type II Diabetes Mellitus Signaling	1.04E-01	1.86E-02	SOCS3,SLC27A5,PKLR
Urate Biosynthesis/Inosine 5'-phosphate Degradation	1.06E-01	4.35E-02	NT5C3A
Adenosine Nucleotides Degradation II	1.06E-01	4E-02	NT5C3A
PI3K/AKT Signaling	1.06E-01	2.08E-02	CDKN1A,JAK3,CCND1
PXR/RXR Activation	1.06E-01	2.3E-02	SCD,G6PC
Hypoxia Signaling in the Cardiovascular System	1.13E-01	3.03E-02	NQO1,UBE2V2
Androgen Biosynthesis	1.15E-01	3.85E-02	SRD5A1
Pyrimidine Deoxyribonucleotides De Novo Biosynthesis I	1.15E-01	2.78E-02	RRM2
Bile Acid Biosynthesis, Neutral Pathway	1.15E-01	1.72E-02	SLC27A5
IL-15 Signaling	1.16E-01	2.99E-02	STAT3,JAK3

IL-17A Signaling in Airway Cells	1.20E-01	2.78E-02	STAT3,JAK3
GM-CSF Signaling	1.23E-01	2.94E-02	STAT3,CCND1
Fatty Acid Activation	1.24E-01	5.26E-02	SLC27A5
Isoleucine Degradation I	1.24E-01	3.33E-02	ACAT2
Oxidative Ethanol Degradation III	1.24E-01	2.5E-02	ACSS2
Tryptophan Degradation X (Mammalian, via Tryptamine)	1.33E-01	3.45E-02	DDC
Putrescine Degradation III	1.33E-01	3.33E-02	SAT1
Hepatic Cholestasis	1.33E-01	1.72E-02	LY96,IL1R1,LBP
cAMP-mediated signaling	1.35E-01	1.81E-02	AKAP5,DUSP1,CREM,STAT3
Growth Hormone Signaling	1.40E-01	2.63E-02	SOCS3,STAT3
RAN Signaling	1.41E-01	4.17E-02	KPNA4
Glutathione Redox Reactions I	1.41E-01	4.35E-02	MGST3
Colanic Acid Building Blocks Biosynthesis	1.41E-01	2.7E-02	UGP2
Ethanol Degradation IV	1.41E-01	3.45E-02	ACSS2
IL-17 Signaling	1.47E-01	2.7E-02	CXCL10,MAPKAPK2
Mismatch Repair in Eukaryotes	1.50E-01	4.17E-02	PCNA
NAD Salvage Pathway II	1.50E-01	3.23E-02	NT5C3A
Leptin Signaling in Obesity	1.50E-01	2.41E-02	SOCS3,STAT3
Cyclins and Cell Cycle Regulation	1.50E-01	2.25E-02	CDKN1A,CCND1
Mitochondrial L-carnitine Shuttle Pathway	1.58E-01	4.55E-02	SLC27A5
Prolactin Signaling	1.64E-01	2.5E-02	SOCS3,STAT3
Acute Myeloid Leukemia Signaling	1.64E-01	2.44E-02	STAT3,CCND1
HER-2 Signaling in Breast Cancer	1.64E-01	2.5E-02	CDKN1A,CCND1
γ-linolenate Biosynthesis II (Animals)	1.67E-01	4E-02	SLC27A5
Aldosterone Signaling in Epithelial Cells	1.71E-01	1.79E-02	SCNN1A,DUSP1,HSPA4L
PDGF Signaling	1.75E-01	2.35E-02	STAT3,JAK3
Maturity Onset Diabetes of Young (MODY) Signaling	1.75E-01	3.23E-02	PKLR
Systemic Lupus Erythematosus Signaling	1.81E-01	1.21E-02	CREM,SNRPB2,LSM3
Role of JAK1, JAK2 and TYK2 in Interferon Signaling	1.92E-01	3.7E-02	STAT3
Glycolysis I	1.92E-01	2.22E-02	PKLR
Bladder Cancer Signaling	1.94E-01	2.2E-02	CDKN1A,CCND1
Polyamine Regulation in Colon Cancer	2.00E-01	3.45E-02	SAT1
Gluconeogenesis I	2.00E-01	2E-02	ME1
FGF Signaling	2.05E-01	2.17E-02	STAT3,MAPKAPK2
HMGB1 Signaling	2.16E-01	2.02E-02	HAT1,IL1R1
IL-17A Signaling in Gastric Cells	2.16E-01	4E-02	CXCL10
Chronic Myeloid Leukemia Signaling	2.19E-01	1.9E-02	CDKN1A,CCND1
Glucocorticoid Receptor Signaling	2.20E-01	1.36E-02	DUSP1,CDKN1A,STAT3,JAK3
Glioma Signaling	2.23E-01	1.79E-02	CDKN1A,CCND1
Ethanol Degradation II	2.24E-01	2.33E-02	ACSS2
Mouse Embryonic Stem Cell Pluripotency	2.27E-01	2.02E-02	STAT3,JAK3
PPAR Signaling	2.31E-01	1.9E-02	PPARD,IL1R1
Cell Cycle Control of Chromosomal Replication	2.32E-01	3.23E-02	RPA3

IGF-1 Signaling	2.34E-01	1.9E-02	SOCS3,STAT3
Role of Hypercytokinemia/hyperchemokinemia in the Pathogenesis of Influenza	2.40E-01	2.27E-02	CXCL10
Complement System	2.40E-01	2.86E-02	C4B (includes others)
Fatty Acid β-oxidation I	2.48E-01	2.22E-02	SLC27A5
Serotonin Receptor Signaling	2.48E-01	2.17E-02	DDC
Nucleotide Excision Repair Pathway	2.55E-01	2.86E-02	RPA3
Type I Diabetes Mellitus Signaling	2.57E-01	1.65E-02	SOCS3,IL1R1
Primary Immunodeficiency Signaling	2.70E-01	1.61E-02	JAK3
Neuroprotective Role of THOP1 in Alzheimer's Disease	2.70E-01	1.85E-02	MME
Triacylglycerol Biosynthesis	2.70E-01	2.17E-02	LPIN1
Role of NANOG in Mammalian Embryonic Stem Cell Pluripotency	2.79E-01	1.75E-02	STAT3,JAK3
14-3-3-mediated Signaling	2.83E-01	1.71E-02	TUBA1A,TUBB2A
PTEN Signaling	3.09E-01	1.48E-02	CDKN1A,CCND1
Transcriptional Regulatory Network in Embryonic Stem Cells	3.21E-01	2.5E-02	STAT3
Cell Cycle: G2/M DNA Damage Checkpoint Regulation	3.21E-01	2.08E-02	CDKN1A
Role of IL-17F in Allergic Inflammatory Airway Diseases	3.27E-01	2.08E-02	CXCL10
Bupropion Degradation	3.34E-01	1.92E-02	CYP51A1
Insulin Receptor Signaling	3.57E-01	1.41E-02	SCNN1A,SOCS3
EGF Signaling	3.67E-01	1.92E-02	STAT3
Colorectal Cancer Metastasis Signaling	3.73E-01	1.17E-02	STAT3,JAK3,CCND1
Molecular Mechanisms of Cancer	3.73E-01	1.06E-02	HAT1,CDKN1A,JAK3,CCND1
CNTF Signaling	3.74E-01	1.82E-02	STAT3
Role of IL-17A in Arthritis	3.99E-01	1.59E-02	MAPKAPK2
Glioblastoma Multiforme Signaling	4.04E-01	1.22E-02	CDKN1A,CCND1
TREM1 Signaling	4.05E-01	1.41E-02	STAT3
Endometrial Cancer Signaling	4.05E-01	1.75E-02	CCND1
IL-2 Signaling	4.05E-01	1.72E-02	JAK3
Glutamate Receptor Signaling	4.05E-01	1.45E-02	SLC1A2
Germ Cell-Sertoli Cell Junction Signaling	4.22E-01	1.22E-02	TUBA1A,TUBB2A
Thrombopoietin Signaling	4.23E-01	1.59E-02	STAT3
Gap Junction Signaling	4.29E-01	1.14E-02	TUBA1A,TUBB2A
Role of BRCA1 in DNA Damage Response	4.29E-01	1.54E-02	CDKN1A
ATM Signaling	4.29E-01	1.64E-02	CDKN1A
Nicotine Degradation III	4.35E-01	1.1E-02	CYP51A1
Melatonin Degradation I	4.35E-01	1.2E-02	CYP51A1
Dopamine-DARPP32 Feedback in cAMP Signaling	4.46E-01	1.09E-02	KCNJ15,CREM
Pyridoxal 5'-phosphate Salvage Pathway	4.46E-01	1.39E-02	G6PC
Agrin Interactions at Neuromuscular Junction	4.52E-01	1.45E-02	PKLR
T Helper Cell Differentiation	4.57E-01	1.39E-02	STAT3
Antiproliferative Role of Somatostatin Receptor 2	4.57E-01	1.41E-02	CDKN1A
Communication between Innate and Adaptive Immune Cells	4.62E-01	9.17E-03	CXCL10
Wnt/β-catenin Signaling	4.66E-01	1.16E-02	PPARD,CCND1
Non-Small Cell Lung Cancer Signaling	4.68E-01	1.27E-02	CCND1

Role of MAPK Signaling in the Pathogenesis of Influenza	4.68E-01	1.45E-02	CXCL10
Nicotine Degradation II	4.73E-01	9.71E-03	CYP51A1
Protein Kinase A Signaling	4.82E-01	9.78E-03	AKAP5,DUSP1,CREM,CDKN3
RAR Activation	4.86E-01	1.06E-02	DUSP1,MAPKAPK2
Sertoli Cell-Sertoli Cell Junction Signaling	4.86E-01	1.03E-02	TUBA1A,TUBB2A
Erythropoietin Signaling	4.90E-01	1.28E-02	SOCS3
Small Cell Lung Cancer Signaling	4.90E-01	1.12E-02	CCND1
IL-4 Signaling	4.90E-01	1.27E-02	JAK3
ILK Signaling	4.92E-01	1.04E-02	TMSB10/TMSB4X,CCND1
IL-3 Signaling	5.00E-01	1.35E-02	STAT3
FLT3 Signaling in Hematopoietic Progenitor Cells	5.00E-01	1.32E-02	STAT3
Dopamine Receptor Signaling	5.00E-01	1.06E-02	DDC
ERK/MAPK Signaling	5.18E-01	9.71E-03	DUSP1,STAT3
LPS-stimulated MAPK Signaling	5.20E-01	1.22E-02	LBP
Salvage Pathways of Pyrimidine Ribonucleotides	5.30E-01	9.8E-03	G6PC
Actin Cytoskeleton Signaling	5.69E-01	8.4E-03	TMSB10/TMSB4X,LBP
IL-1 Signaling	5.79E-01	9.43E-03	IL1R1
Telomerase Signaling	5.92E-01	9.71E-03	CDKN1A
Amyotrophic Lateral Sclerosis Signaling	6.08E-01	8.47E-03	SLC1A2
Cholecystokinin/Gastrin-mediated Signaling	6.17E-01	9.43E-03	CREM
72 h post-TBI			
GADD45 Signaling	6.31E-05	1.36E-01	PCNA,CDKN1A,CCND1
Cell Cycle: G1/S Checkpoint Regulation	1.82E-03	4.55E-02	HDAC2,CDKN1A,CCND1
PXR/RXR Activation	2.14E-03	3.45E-02	SCD,CYP7A1,CYP2B6
Nicotine Degradation II	3.16E-03	2.91E-02	UGT2A3,CYP2B6,INMT
Cyclins and Cell Cycle Regulation	3.98E-03	3.37E-02	HDAC2,CDKN1A,CCND1
Estrogen-mediated S-phase Entry	4.27E-03	7.14E-02	CDKN1A,CCND1
Flavin Biosynthesis IV (Mammalian)	4.68E-03	1.25E-01	RFK
p53 Signaling	5.62E-03	3.12E-02	PCNA,CDKN1A,CCND1
Prostate Cancer Signaling	5.62E-03	3.06E-02	SRD5A1,CDKN1A,CCND1
Chronic Myeloid Leukemia Signaling	7.76E-03	2.86E-02	HDAC2,CDKN1A,CCND1
Cell Cycle Regulation by BTG Family Proteins	9.12E-03	5.56E-02	CCND1,CCRN4L
Guanine and Guanosine Salvage I	9.33E-03	1.11E-01	HPRT1
Hereditary Breast Cancer Signaling	1.29E-02	2.34E-02	HDAC2,CDKN1A,CCND1
Melanoma Signaling	1.58E-02	4.35E-02	CDKN1A,CCND1
Adenine and Adenosine Salvage III	1.86E-02	6.67E-02	HPRT1
Aryl Hydrocarbon Receptor Signaling	2.04E-02	1.86E-02	CDKN1A,CCND1,MGST3
Role of CHK Proteins in Cell Cycle Checkpoint Control	2.14E-02	3.57E-02	PCNA,CDKN1A
Nicotine Degradation III	2.82E-02	2.2E-02	UGT2A3,CYP2B6
Melatonin Degradation I	2.82E-02	2.41E-02	UGT2A3,CYP2B6
Oleate Biosynthesis II (Animals)	4.17E-02	5.26E-02	SCD
HER-2 Signaling in Breast Cancer	4.47E-02	2.5E-02	CDKN1A,CCND1

Guanosine Nucleotides Degradation III	4.57E-02	4.55E-02	NT5C3A
Urate Biosynthesis/Inosine 5'-phosphate Degradation	5.01E-02	4.35E-02	NT5C3A
Adenosine Nucleotides Degradation II	5.01E-02	4E-02	NT5C3A
Bladder Cancer Signaling	5.37E-02	2.2E-02	CDKN1A,CCND1
Androgen Biosynthesis	5.50E-02	3.85E-02	SRD5A1
Pyrimidine Deoxyribonucleotides De Novo Biosynthesis I	5.50E-02	2.78E-02	RRM2
Bile Acid Biosynthesis, Neutral Pathway	5.50E-02	1.72E-02	CYP7A1
Methylglyoxal Degradation III	5.89E-02	4.35E-02	AKR7A3
LPS/IL-1 Mediated Inhibition of RXR Function	6.17E-02	1.26E-02	CYP7A1,CYP2B6,MGST3
Glioma Signaling	6.46E-02	1.79E-02	CDKN1A,CCND1
Telomerase Signaling	6.46E-02	1.94E-02	HDAC2,CDKN1A
Glutathione Redox Reactions I	6.76E-02	4.35E-02	MGST3
Mismatch Repair in Eukaryotes	7.24E-02	4.17E-02	PCNA
NAD Salvage Pathway II	7.24E-02	3.23E-02	NT5C3A
HGF Signaling	7.24E-02	1.9E-02	CDKN1A,CCND1
Pancreatic Adenocarcinoma Signaling	8.13E-02	1.67E-02	CDKN1A,CCND1
LXR/RXR Activation	8.32E-02	1.47E-02	SCD,CYP7A1
DNA Methylation and Transcriptional Repression Signaling	8.51E-02	4.35E-02	HDAC2
Thyroid Hormone Metabolism II (via Conjugation and/or Degradation)	8.91E-02	1.92E-02	UGT2A3
PTEN Signaling	9.55E-02	1.48E-02	CDKN1A,CCND1
PI3K/AKT Signaling	9.77E-02	1.39E-02	CDKN1A,CCND1
Glutathione-mediated Detoxification	1.07E-01	2.22E-02	MGST3
Cell Cycle Control of Chromosomal Replication	1.15E-01	3.23E-02	RPA3
Nucleotide Excision Repair Pathway	1.28E-01	2.86E-02	RPA3
Glioblastoma Multiforme Signaling	1.35E-01	1.22E-02	CDKN1A,CCND1
Circadian Rhythm Signaling	1.36E-01	2.7E-02	PER2
Neuroprotective Role of THOP1 in Alzheimer's Disease	1.36E-01	1.85E-02	MME
Aldosterone Signaling in Epithelial Cells	1.42E-01	1.19E-02	DUSP1,HSPA4L
Cell Cycle: G2/M DNA Damage Checkpoint Regulation	1.64E-01	2.08E-02	CDKN1A
Thyroid Cancer Signaling	1.67E-01	2.38E-02	CCND1
Bupropion Degradation	1.72E-01	1.92E-02	CYP2B6
Serotonin Degradation	1.72E-01	1.32E-02	UGT2A3
Molecular Mechanisms of Cancer	1.73E-01	7.96E-03	HAT1,CDKN1A,CCND1
Acetone Degradation I (to Methylglyoxal)	1.75E-01	1.82E-02	CYP2B6
Nur77 Signaling in T Lymphocytes	1.83E-01	1.59E-02	HDAC2
NRF2-mediated Oxidative Stress Response	1.85E-01	1.04E-02	AKR7A3,MGST3
Calcium-induced T Lymphocyte Apoptosis	2.13E-01	1.43E-02	HDAC2
Endometrial Cancer Signaling	2.13E-01	1.75E-02	CCND1
Estrogen Biosynthesis	2.17E-01	1.47E-02	CYP2B6
ErbB2-ErbB3 Signaling	2.24E-01	1.67E-02	CCND1
Role of BRCA1 in DNA Damage Response	2.28E-01	1.54E-02	CDKN1A
ATM Signaling	2.28E-01	1.64E-02	CDKN1A
Huntington's Disease Signaling	2.36E-01	8.44E-03	HDAC2,CASP4

Antiproliferative Role of Somatostatin Receptor 2	2.46E-01	1.41E-02	CDKN1A
GM-CSF Signaling	2.46E-01	1.47E-02	CCND1
Estrogen-Dependent Breast Cancer Signaling	2.49E-01	1.39E-02	CCND1
Non-Small Cell Lung Cancer Signaling	2.54E-01	1.27E-02	CCND1
Small Cell Lung Cancer Signaling	2.67E-01	1.12E-02	CCND1
JAK/Stat Signaling	2.67E-01	1.43E-02	CDKN1A
Acute Myeloid Leukemia Signaling	2.88E-01	1.22E-02	CCND1
VDR/RXR Activation	2.94E-01	1.23E-02	CDKN1A
FXR/RXR Activation	2.94E-01	9.9E-03	CYP7A1
TR/RXR Activation	3.01E-01	1.04E-02	CYP7A1
Glucocorticoid Receptor Signaling	3.07E-01	6.8E-03	DUSP1,CDKN1A
Xenobiotic Metabolism Signaling	3.07E-01	6.71E-03	CYP2B6,MGST3
HMGB1 Signaling	3.33E-01	1.01E-02	HAT1
Sphingosine-1-phosphate Signaling	3.73E-01	8.33E-03	CASP4
Androgen Signaling	3.79E-01	6.99E-03	CCND1
p38 MAPK Signaling	3.99E-01	8.55E-03	DUSP1
AMPK Signaling	4.36E-01	6.02E-03	PFKFB1
Ovarian Cancer Signaling	4.44E-01	7.04E-03	CCND1
Hepatic Cholestasis	4.46E-01	5.75E-03	CYP7A1
NF-κB Signaling	4.93E-01	5.71E-03	HDAC2
Systemic Lupus Erythematosus Signaling	4.97E-01	4.05E-03	LSM3
Protein Kinase A Signaling	4.98E-01	4.89E-03	DUSP1,CDKN3
Calcium Signaling	5.15E-01	4.74E-03	HDAC2
Wnt/β-catenin Signaling	5.20E-01	5.78E-03	CCND1
Endothelin-1 Signaling	5.26E-01	5.35E-03	CASP4
RAR Activation	5.33E-01	5.29E-03	DUSP1
ILK Signaling	5.37E-01	5.21E-03	CCND1
Role of NFAT in Cardiac Hypertrophy	5.37E-01	4.83E-03	HDAC2
IL-8 Signaling	5.46E-01	4.9E-03	CCND1
Breast Cancer Regulation by Stathmin1	5.55E-01	4.83E-03	CDKN1A
ERK/MAPK Signaling	5.55E-01	4.85E-03	DUSP1
cAMP-mediated signaling	6.03E-01	4.52E-03	DUSP1
Phospholipase C Signaling	6.17E-01	3.85E-03	HDAC2
7 days post-TBI			
Prostate Cancer Signaling	6.03E-04	3.06E-02	SRD5A1,HSP90AA1,CCND1
Cell Cycle Regulation by BTG Family Proteins	2.04E-03	5.56E-02	CCND1,CCRN4L
Flavin Biosynthesis IV (Mammalian)	2.19E-03	1.25E-01	RFK
Trehalose Degradation II (Trehalase)	4.37E-03	1.25E-01	GCK
GDP-glucose Biosynthesis	1.10E-02	5.88E-02	GCK
Protein Ubiquitination Pathway	1.23E-02	1.12E-02	UBD,HSP90AA1,DNAJB9
Glucose and Glucose-1-phosphate Degradation	1.29E-02	4.55E-02	GCK
UDP-N-acetyl-D-galactosamine Biosynthesis II	1.51E-02	4.17E-02	GCK

Androgen Signaling	2.04E-02	1.4E-02	HSP90AA1,CCND1
Hereditary Breast Cancer Signaling	2.14E-02	1.56E-02	UBD,CCND1
PI3K/AKT Signaling	2.51E-02	1.39E-02	HSP90AA1,CCND1
Androgen Biosynthesis	2.57E-02	3.85E-02	SRD5A1
Pyrimidine Deoxyribonucleotides De Novo Biosynthesis I	2.57E-02	2.78E-02	RRM2
Aryl Hydrocarbon Receptor Signaling	2.95E-02	1.24E-02	HSP90AA1,CCND1
GADD45 Signaling	3.63E-02	4.55E-02	CCND1
Aldosterone Signaling in Epithelial Cells	3.80E-02	1.19E-02	HSP90AA1,DNAJB9
Maturity Onset Diabetes of Young (MODY) Signaling	4.07E-02	3.23E-02	GCK
Wnt/β-catenin Signaling	4.47E-02	1.16E-02	UBD,CCND1
Estrogen-mediated S-phase Entry	4.47E-02	3.57E-02	CCND1
NRF2-mediated Oxidative Stress Response	5.13E-02	1.04E-02	HERPUD1,DNAJB9
Neuroprotective Role of THOP1 in Alzheimer's Disease	6.61E-02	1.85E-02	MME
Dermatan Sulfate Biosynthesis (Late Stages)	7.41E-02	2.13E-02	SULT2A1
Chondroitin Sulfate Biosynthesis (Late Stages)	7.94E-02	1.85E-02	SULT2A1
Thyroid Cancer Signaling	8.13E-02	2.38E-02	CCND1
Melanoma Signaling	8.51E-02	2.17E-02	CCND1
Heparan Sulfate Biosynthesis (Late Stages)	8.71E-02	1.64E-02	SULT2A1
Xenobiotic Metabolism Signaling	9.55E-02	6.71E-03	HSP90AA1,SULT2A1
GABA Receptor Signaling	9.55E-02	1.75E-02	UBD
Endometrial Cancer Signaling	1.06E-01	1.75E-02	CCND1
Cell Cycle: G1/S Checkpoint Regulation	1.08E-01	1.52E-02	CCND1
ErbB2-ErbB3 Signaling	1.11E-01	1.67E-02	CCND1
PXR/RXR Activation	1.14E-01	1.15E-02	SULT2A1
Hypoxia Signaling in the Cardiovascular System	1.17E-01	1.52E-02	HSP90AA1
Mitotic Roles of Polo-Like Kinase	1.23E-01	1.45E-02	HSP90AA1
GM-CSF Signaling	1.23E-01	1.47E-02	CCND1
Estrogen-Dependent Breast Cancer Signaling	1.25E-01	1.39E-02	CCND1
Non-Small Cell Lung Cancer Signaling	1.27E-01	1.27E-02	CCND1
Renal Cell Carcinoma Signaling	1.35E-01	1.35E-02	UBD
Small Cell Lung Cancer Signaling	1.35E-01	1.12E-02	CCND1
Nitric Oxide Signaling in the Cardiovascular System	1.36E-01	1.01E-02	HSP90AA1
Cyclins and Cell Cycle Regulation	1.38E-01	1.12E-02	CCND1
Acute Myeloid Leukemia Signaling	1.46E-01	1.22E-02	CCND1
HER-2 Signaling in Breast Cancer	1.46E-01	1.25E-02	CCND1
VDR/RXR Activation	1.50E-01	1.23E-02	SULT2A1
FXR/RXR Activation	1.50E-01	9.9E-03	SULT2A1
TR/RXR Activation	1.53E-01	1.04E-02	NRGN
p53 Signaling	1.55E-01	1.04E-02	CCND1
Bladder Cancer Signaling	1.61E-01	1.1E-02	CCND1
Neuregulin Signaling	1.64E-01	9.8E-03	HSP90AA1
Chronic Myeloid Leukemia Signaling	1.74E-01	9.52E-03	CCND1
Glioma Signaling	1.75E-01	8.93E-03	CCND1

Telomerase Signaling	1.75E-01	9.71E-03	HSP90AA1
PPAR Signaling	1.79E-01	9.52E-03	HSP90AA1
HGF Signaling	1.88E-01	9.52E-03	CCND1
HIF1α Signaling	1.90E-01	9.26E-03	HSP90AA1
Pancreatic Adenocarcinoma Signaling	1.99E-01	8.33E-03	CCND1
PTEN Signaling	2.16E-01	7.41E-03	CCND1
Type II Diabetes Mellitus Signaling	2.18E-01	6.21E-03	GCK
eNOS Signaling	2.23E-01	6.58E-03	HSP90AA1
Ovarian Cancer Signaling	2.38E-01	7.04E-03	CCND1
Glioblastoma Multiforme Signaling	2.60E-01	6.1E-03	CCND1
PPARα/RXRα Activation	2.86E-01	5.43E-03	HSP90AA1
ILK Signaling	3.01E-01	5.21E-03	CCND1
Clathrin-mediated Endocytosis Signaling	3.04E-01	5.1E-03	UBD
IL-8 Signaling	3.08E-01	4.9E-03	CCND1
LPS/IL-1 Mediated Inhibition of RXR Function	3.45E-01	4.18E-03	SULT2A1
Huntington's Disease Signaling	3.52E-01	4.22E-03	UBD
Colorectal Cancer Metastasis Signaling	3.78E-01	3.89E-03	CCND1
Glucocorticoid Receptor Signaling	4.08E-01	3.4E-03	HSP90AA1
Role of Macrophages, Fibroblasts and Endothelial Cells in Rheumatoid Arthritis	4.51E-01	3E-03	CCND1
Molecular Mechanisms of Cancer	4.92E-01	2.65E-03	CCND1
Protein Kinase A Signaling	5.43E-01	2.44E-03	CDKN3