

Microarray analysis in liver following burn and CLP

Supplementary materials

Quantitative real-time PCR

qPCR gene expression studies were performed for genes of interest (GOI) as validation of the microarray results. The RNA samples were amplified with Nugen WT Pico Kit (Part# 3300-A01) (NuGEN Technologies Inc, San Carlos, CA, USA). RNA was reversed transcribed into DNA. Then cDNA samples were diluted by 100 times. All the samples were tested in triplicates. qPCR was performed using the ABI 7900 HT Sequence Sequence Detection System (TaqMan; Applied Biosystems, Foster City, CA, USA) using standard fluorescent chemistries and thermal cycling conditions. Primer and probe sequences were designed for each experimental gene's mRNA sequence using Primer Express software (Applied Biosystems) as shown in **Table 3**. For the gene of interest, 6-10 ng of cDNA was mixed with 20 μ M FWR/Rvse and 10 μ M (UPL) Probe (UPL). The reference gene GAPDH was added into Rodent GAPDH control kit ABI (Part No.4308313) (TaqMan; Applied Biosystems, Foster City, CA, USA) with 10 μ M FWR/Rvse and 20 μ M Probe. Thermal cycling conditions were as specified by the manufacturer: 50°C for 2 min, 95°C for 10 min, and 40 cycles as follows: 95°C for 15 s, ramp to 60°C for 1 min.

Analysis of qPCR data

For the analysis of the qPCR results, averaged normalized data for each experimental gene was compared between B_CLP groups and SB_CLP groups using the $2^{-\Delta\Delta C_t}$ method.

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Supplementary Table 1. Full Pathway Analysis By IPA of Genes With Significant Fold Change Between BCLP and SCLP Conditions

Time (hr)	Up/Down Regulation	Pathway	Gene Annotation	p-value
2	Up	Phenylalanine, Tyrosine and Tryptophan Biosynthesis	<i>Got1, Tat</i>	0.000398
2	Up	Circadian Rhythm Signaling	<i>Per1, Cry2</i>	0.001318
2	Up	Phenylalanine Metabolism	<i>Got1, Tat</i>	0.002089
2	Up	Tyrosine Metabolism	<i>Got1, Tat</i>	0.007244
2	Up	PPAR Signaling	<i>Cited2, Ppargc1A</i>	0.012303
2	Up	Glycerophospholipid Metabolism	<i>Etnk1, Got1</i>	0.019055
2	Up	PPAR α /RXR α Activation	<i>Cd36, Ppargc1A</i>	0.034674
2	Up	RAR Activation	<i>Cited2, Ppargc1A</i>	0.035481
2	Down	Xenobiotic Metabolism Signaling	<i>Aldh1B1, Il1A, Nras, Ugt2B, Fmo1, Ces1</i>	0.00138
2	Down	Role of MAPK Signaling in the Pathogenesis of Influenza	<i>Cxcl10, Nras, Pnpla3</i>	0.002399
2	Down	Communication between Innate and Adaptive Immune Cells	<i>Cxcl10, Il1A, Cd83</i>	0.006761
2	Down	Atherosclerosis Signaling	<i>Il1A, Pnpla3, Tnfrsf14</i>	0.007413
2	Down	Interferon Signaling	<i>Ifit3, Irf1</i>	0.00912
2	Down	Glycerolipid Metabolism	<i>Aldh1B1, Pnpla3, Akr1B7</i>	0.009333
2	Down	Pentose and Glucuronate Interconversions	<i>Ugt2B, Akr1B7</i>	0.012303
2	Down	Thyroid Cancer Signaling	<i>Cxcl10, Nras</i>	0.014791
2	Down	Role of Hypercytokinemia/hyperchemokine in the Pathogenesis of Influenza	<i>Cxcl10, Il1A</i>	0.014791
2	Down	Bile Acid Biosynthesis	<i>Aldh1B1, Akr1C4</i>	0.022387
2	Down	Estrogen-Dependent Breast Cancer Signaling	<i>Nras, Akr1C4</i>	0.026303
2	Down	Activation of IRF by Cytosolic Pattern Recognition Receptors	<i>Dhx58, Isg15</i>	0.02884
2	Down	Pyruvate Metabolism	<i>Aldh1B1, Akr1B7</i>	0.032359
2	Down	Endothelin-1 Signaling	<i>Nras, Pnpla3, Casp4</i>	0.033113
2	Down	Aggrin Interactions at Neuromuscular Junction	<i>Nras, Utrn</i>	0.033113
2	Down	PPAR α /RXR α Activation	<i>Nras, Fasn, Ckap5</i>	0.034674
2	Down	IL-17 Signaling	<i>Cxcl10, Nras</i>	0.037154
2	Down	Pathogenesis of Multiple Sclerosis	<i>Cxcl10</i>	0.037154
2	Down	NF- κ B Activation by Viruses	<i>Nras, Tnfrsf14</i>	0.038019
2	Down	Prolactin Signaling	<i>Nras, Irf1</i>	0.038019
2	Down	LXR/RXR Activation	<i>Il1A, Fasn</i>	0.040738
2	Down	Fatty Acid Biosynthesis	<i>Fasn</i>	0.041687
2	Down	Androgen and Estrogen Metabolism	<i>Ugt2B, Akr1C4</i>	0.043652
4	Up	Arachidonic Acid Metabolism	<i>Cyp4A22</i>	0.021878
4	Up	Fatty Acid Metabolism	<i>Cyp4A22</i>	0.022387
4	Down	Glucocorticoid Receptor Signaling	<i>Icam1, Hspa14, Sgk1, Nfkbie, Jak2, Ccl5, Prkag1, Smarca4, Taf9B, Fos, Nfkbia, Il1B, Stat1</i>	0.0001
4	Down	Pathogenesis of Multiple Sclerosis	<i>Cxcl10, Ccl5, Cxcl11</i>	0.000224
4	Down	Role of PKR in Interferon Induction and Antiviral Response	<i>Tp53, Nfkbia, Nfkbie, Stat1, Irf1</i>	0.000245
4	Down	Production of Nitric Oxide and Reactive Oxygen Species in Macrophages	<i>Fos, Ppp1R3D, Nfkbia, Rnd3, Nfkbie, Ppp1R14A, Jak2, Stat1, Irf1</i>	0.000363
4	Down	IL-17A Signaling in Gastric Cells	<i>Cxcl10, Fos, Ccl5, Cxcl11</i>	0.000398
4	Down	Dendritic Cell Maturation	<i>Il1A, Icam1, Nfkbia, Nfkbie, Hla-Dqa1, Il1B, Cd83, Jak2, Stat1</i>	0.000479
4	Down	Prolactin Signaling	<i>Myc, Fos, Jak2, Prr, Stat1, Irf1</i>	0.000603
4	Down	Colorectal Cancer Metastasis Signaling	<i>Tp53, Myc, Fos, Rnd3, Mmp15, Lrp6, Tcf7L1, Mmp2, Jak2, Stat1, Prkag1</i>	0.000646
4	Down	Aryl Hydrocarbon Receptor Signaling	<i>Tp53, Myc, Aldh1B1, Fos, Il1A, Il1B, Nfe2L2, Smarca4</i>	0.000776

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4	Down	Type I Diabetes Mellitus Signaling	<i>Nfkbia, Nfkbie, Hla-Dqa1, Il1B, Jak2, Stat1, Irf1</i>	0.000933
4	Down	Role of BRCA1 in DNA Damage Response	<i>Tp53, Fancc, Stat1, Fancl, Smarca4</i>	0.001175
4	Down	Interferon Signaling	<i>Mx1, Jak2, Stat1, Irf1</i>	0.001318
4	Down	Role of Macrophages, Fibroblasts and Endothelial Cells in Rheumatoid Arthritis	<i>Myc, Fos, Il1A, Icam1, Nfkbia, Cebpd, Nfkbie, Lrp6, Il1B, Tcf7L1, Jak2, Ccl5</i>	0.001349
4	Down	IL-17A Signaling in Fibroblasts	<i>Fos, Nfkbia, Cebpd, Nfkbie</i>	0.001479
4	Down	Communication between Innate and Adaptive Immune Cells	<i>Cxcl10, Il1A, Ccl3L1/Ccl3L3, Il1B, Cd83, Ccl5</i>	0.001905
4	Down	Activation of IRF by Cytosolic Pattern Recognition Receptors	<i>Nfkbia, Nfkbie, Stat1, Adar, Isg15</i>	0.001995
4	Down	IL-6 Signaling	<i>Fos, Il1A, Nfkbia, Nfkbie, Il1B, Jak2</i>	0.002239
4	Down	Pyruvate Metabolism	<i>Aldh1B1, Pklr, Acat1, Acaca, Me1</i>	0.00263
4	Down	MIF Regulation of Innate Immunity	<i>Tp53, Fos, Nfkbia, Nfkbie</i>	0.002692
4	Down	IL-10 Signaling	<i>Fos, Il1A, Nfkbia, Nfkbie, Il1B</i>	0.002818
4	Down	PPAR α /RXR α Activation	<i>Nfkbia, Gpd2, Nfkbie, Acvr1, Il1B, Jak2, Adipor2, Prkag1</i>	0.002951
4	Down	Thyroid Cancer Signaling	<i>Cxcl10, Tp53, Myc, Tcf7L1</i>	0.003467
4	Down	Role of Hypercytokinemia/hyperchemokineemia in the Pathogenesis of Influenza	<i>Cxcl10, Il1A, Il1B, Ccl5</i>	0.003467
4	Down	Aminosugars Metabolism	<i>Hk2, Gnpda2, Nanp, Pde4B, Cyb561</i>	0.003631
4	Down	IL-15 Production	<i>Jak2, Stat1, Irf1</i>	0.007244
4	Down	TREM1 Signaling	<i>Icam1, Il1B, Cd83, Jak2</i>	0.007244
4	Down	Thrombopoietin Signaling	<i>Myc, Fos, Jak2, Stat1</i>	0.007762
4	Down	TNFR2 Signaling	<i>Fos, Nfkbia, Nfkbie</i>	0.007943
4	Down	Acute Phase Response Signaling	<i>Fos, Il1A, Sod2, Nfkbia, Nfkbie, Il1B, Jak2</i>	0.01
4	Down	IL-1 Signaling	<i>Fos, Il1A, Nfkbia, Nfkbie, Prkag1</i>	0.01
4	Down	Insulin Receptor Signaling	<i>Ppp1R3D, Sgk1, Ppp1R14A, Jak2, Ptpfr, Prkag1</i>	0.010715
4	Down	PPAR Signaling	<i>Fos, Il1A, Nfkbia, Nfkbie, Il1B</i>	0.012023
4	Down	Synthesis and Degradation of Ketone Bodies	<i>Bdh1, Acat1</i>	0.012023
4	Down	TWEAK Signaling	<i>Nfkbia, Nfkbie, Bag4</i>	0.012303
4	Down	CD40 Signaling	<i>Fos, Icam1, Nfkbia, Nfkbie</i>	0.012303
4	Down	Relaxin Signaling	<i>Fos, Gucy1B2, Nfkbia, Nfkbie, Pde4B, Prkag1</i>	0.012303
4	Down	Role of JAK2 in Hormone-like Cytokine Signaling	<i>Jak2, Prlr, Stat1</i>	0.013183
4	Down	Role of IL-17A in Psoriasis	<i>S100A9, S100A8</i>	0.014125
4	Down	Nitrogen Metabolism	<i>Ca3, Asns, Adar</i>	0.014454
4	Down	Hepatic Cholestasis	<i>Il1A, Tjp2, Nfkbia, Nfkbie, Il1B, Prkag1</i>	0.015136
4	Down	Hepatic Fibrosis / Hepatic Stellate Cell Activation	<i>Il1A, Icam1, Fgfr2, Il1B, Ccl5, Stat1</i>	0.015136
4	Down	Erythropoietin Signaling	<i>Fos, Nfkbia, Nfkbie, Jak2</i>	0.015136
4	Down	ERK/MAPK Signaling	<i>Myc, Fos, Ppp1R3D, Dusp6, Ppp1R14A, Stat1, Prkag1</i>	0.016596
4	Down	April Mediated Signaling	<i>Fos, Nfkbia, Nfkbie</i>	0.016596
4	Down	Small Cell Lung Cancer Signaling	<i>Tp53, Myc, Nfkbia, Nfkbie</i>	0.018621
4	Down	PDGF Signaling	<i>Myc, Fos, Jak2, Stat1</i>	0.018621
4	Down	B Cell Activating Factor Signaling	<i>Fos, Nfkbia, Nfkbie</i>	0.019055
4	Down	Renin-Angiotensin Signaling	<i>Fos, Jak2, Ccl5, Stat1, Prkag1</i>	0.019953
4	Down	Dopamine Receptor Signaling	<i>Ppp1R3D, Ddc, Ppp1R14A, Prkag1</i>	0.022909
4	Down	Type II Diabetes Mellitus Signaling	<i>Nfkbia, Pklr, Nfkbie, Adipor2, Prkag1</i>	0.024547
4	Down	Differential Regulation of Cytokine Production in Macrophages and T Helper Cells by IL-17A and IL-17F	<i>Il1B, Ccl5</i>	0.026303
4	Down	Graft-versus-Host Disease Signaling	<i>Il1A, Hla-Dqa1, Il1B</i>	0.027542
4	Down	Galactose Metabolism	<i>Hk2, B4Galt1, Pfkf</i>	0.02884
4	Down	TNFR1 Signaling	<i>Fos, Nfkbia, Nfkbie</i>	0.030903
4	Down	Wnt/ β -catenin Signaling	<i>Tp53, Myc, Axin2, Lrp6, Acvr1, Tcf7L1</i>	0.034674
4	Down	FXR/RXR Activation	<i>Il1A, Pklr, Foxa2, Il1B</i>	0.035481
4	Down	CDK5 Signaling	<i>Ppp1R3D, Egr1, Ppp1R14A, Prkag1</i>	0.035481
4	Down	CD27 Signaling in Lymphocytes	<i>Fos, Nfkbia, Nfkbie</i>	0.036308

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4	Down	Role of Osteoblasts, Osteoclasts and Chondrocytes in Rheumatoid Arthritis	<i>Fos,Il1A,Nfkbia,Nfkbie,Lrp6,Il1B,Tcf7L1</i>	0.037154
4	Down	Bladder Cancer Signaling	<i>Tp53,Myc,Mmp15,Mmp24</i>	0.038019
4	Down	Differential Regulation of Cytokine Production in Intestinal Epithelial Cells by IL-17A and IL-17F	<i>Il1B,Ccl5</i>	0.038905
4	Down	Glycolysis/Gluconeogenesis	<i>Aldh1B1,Hk2,Pklr,Pfkm</i>	0.039811
4	Down	Cardiac β -adrenergic Signaling	<i>Akap13,PPP1R3D,PPP1R14A,Pde4B,Prkag1</i>	0.040738
4	Down	Role of IL-17A in Arthritis	<i>Nfkbia,Nfkbie,Ccl5</i>	0.041687
4	Down	Maturity Onset Diabetes of Young (MODY) Signaling	<i>Pklr,Foxa2</i>	0.041687
4	Down	NRF2-mediated Oxidative Stress Response	<i>Fos,Sod2,Dnajc4,Dnajc14,Fmo1,Nfe2L2</i>	0.043652
4	Down	HMGBl Signaling	<i>Fos,Il1A,Icam1,Rnd3</i>	0.045709
4	Down	Atherosclerosis Signaling	<i>Il1A,Icam1,Il1B,Tnfrsf14</i>	0.045709
4	Down	Role of JAK1, JAK2 and TYK2 in Interferon Signaling	<i>Jak2,Stat1</i>	0.045709
4	Down	Propanoate Metabolism	<i>Aldh1B1,Acat1,Acaca</i>	0.047863
4	Down	Role of JAK family kinases in IL-6-type Cytokine Signaling	<i>Jak2,Stat1</i>	0.048978
8	Up	Glycine, Serine and Threonine Metabolism	<i>Sardh,Gnmt,Chdh,Alas1,Elovl6</i>	4.79E-06
8	Up	Protein Ubiquitination Pathway	<i>Hspa8,Usp15,Hsph1,Hsp90Aa1,Ube2E2,Anapc11,Dnaja1</i>	3.39E-05
8	Up	Urea Cycle and Metabolism of Amino Groups	<i>Sardh,Ass1,Asl</i>	0.000186
8	Up	Complement System	<i>Serp1g1,C9,Cfb</i>	0.000204
8	Up	Acute Phase Response Signaling	<i>Il33,Serp1g1,Ftl,C9,Cfb</i>	0.000288
8	Up	Phenylalanine Metabolism	<i>Dhcr24,Aldh1L1,Elovl6</i>	0.000339
8	Up	Metabolism of Xenobiotics by Cytochrome P450	<i>Gsta4,Aldh1L1,Cyp2C44,Cyp51A1</i>	0.000692
8	Up	Aldosterone Signaling in Epithelial Cells	<i>Hspa8,Hsph1,Hsp90Aa1,Dnaja1</i>	0.001995
8	Up	Arginine and Proline Metabolism	<i>Ass1,Asl,Amd1</i>	0.002138
8	Up	One Carbon Pool by Folate	<i>Aldh1L1,Mthfd1</i>	0.002188
8	Up	Biosynthesis of Steroids	<i>Ebp,Hmgcr</i>	0.002399
8	Up	Methionine Metabolism	<i>Mat1A,Amd1</i>	0.004898
8	Up	Alanine and Aspartate Metabolism	<i>Ass1,Asl</i>	0.008128
8	Up	Tryptophan Metabolism	<i>Dhcr24,Cyp2C44,Cyp51A1</i>	0.010715
8	Up	Aryl Hydrocarbon Receptor Signaling	<i>Sp1,Aldh1L1,Hsp90Aa1</i>	0.012303
8	Up	Histidine Metabolism	<i>Aldh1L1,Elovl6</i>	0.013183
8	Up	Mitotic Roles of Polo-Like Kinase	<i>Hsp90Aa1,Anapc11</i>	0.019953
8	Up	Hypoxia Signaling in the Cardiovascular System	<i>Hsp90Aa1,Ube2E2</i>	0.022909
8	Up	IL-10 Signaling	<i>Il33,Sp1</i>	0.023442
8	Up	PXR/RXR Activation	<i>Abcb11,Alas1</i>	0.024547
8	Up	Aminosugars Metabolism	<i>Por,Sacm1L</i>	0.026303
8	Up	Tyrosine Metabolism	<i>Aldh1L1,Elovl6</i>	0.026915
8	Up	LXR/RXR Activation	<i>Il33,Hmgcr</i>	0.02884
8	Up	Linoleic Acid Metabolism	<i>Cyp2C44,Cyp51A1</i>	0.029512
8	Up	LPS/IL-1 Mediated Inhibition of RXR Function	<i>Abcb11,Aldh1L1,Alas1</i>	0.033113
8	Up	FXR/RXR Activation	<i>Il33,Abcb11</i>	0.037154
8	Up	PPAR Signaling	<i>Il33,Hsp90Aa1</i>	0.044668
8	Up	Nicotinate and Nicotinamide Metabolism	<i>Hipk1,Sacm1L</i>	0.047863
8	Down	Synthesis and Degradation of Ketone Bodies	<i>Acat1</i>	0.006457
8	Down	Antiproliferative Role of TOB in T Cell Signaling	<i>Cdkn1B</i>	0.014125
8	Down	Nitrogen Metabolism	<i>Ca3</i>	0.019498
8	Down	Cell Cycle: G1/S Checkpoint Regulation	<i>Cdkn1B</i>	0.0302
8	Down	Propanoate Metabolism	<i>Acat1</i>	0.0302
8	Down	Butanoate Metabolism	<i>Acat1</i>	0.032359
8	Down	Lysine Degradation	<i>Acat1</i>	0.033113
8	Down	Antiproliferative Role of Somatostatin Receptor 2	<i>Cdkn1B</i>	0.033884
8	Down	Pyruvate Metabolism	<i>Acat1</i>	0.035481
8	Down	Valine, Leucine and Isoleucine Degradation	<i>Acat1</i>	0.035481
8	Down	Small Cell Lung Cancer Signaling	<i>Cdkn1B</i>	0.038019
8	Down	HER-2 Signaling in Breast Cancer	<i>Cdkn1B</i>	0.040738

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8	Down	VDR/RXR Activation	<i>Cdkn1B</i>	0.041687
8	Down	Cyclins and Cell Cycle Regulation	<i>Cdkn1B</i>	0.041687
8	Down	Prostate Cancer Signaling	<i>Cdkn1B</i>	0.042658
8	Down	Neuregulin Signaling	<i>Cdkn1B</i>	0.046774
12	Up	Tyrosine Metabolism	<i>Adh1C,Aox1</i>	0.000525
12	Up	Metabolism of Xenobiotics by Cytochrome P450	<i>Adh1C,Cyp2B6</i>	0.001288
12	Up	Fatty Acid Metabolism	<i>Adh1C,Cyp2B6</i>	0.001514
12	Up	Tryptophan Metabolism	<i>Aox1,Cyp2B6</i>	0.00166
12	Up	Inhibition of Angiogenesis by TSP1	<i>Cd36</i>	0.016218
12	Up	Retinol Metabolism	<i>Adh1C</i>	0.02138
12	Up	Bile Acid Biosynthesis	<i>Adh1C</i>	0.026303
12	Up	Valine, Leucine and Isoleucine Degradation	<i>Aox1</i>	0.031623
12	Up	PXR/RXR Activation	<i>Cyp2B6</i>	0.033113
12	Up	Arginine and Proline Metabolism	<i>Prodh</i>	0.034674
12	Up	LXR/RXR Activation	<i>Cd36</i>	0.036308
12	Up	Linoleic Acid Metabolism	<i>Cyp2B6</i>	0.036308
12	Up	FXR/RXR Activation	<i>Cyp8B1</i>	0.041687
12	Up	Glycolysis/Gluconeogenesis	<i>Adh1C</i>	0.042658
12	Up	Atherosclerosis Signaling	<i>Cd36</i>	0.044668
12	Up	Nicotinate and Nicotinamide Metabolism	<i>Aox1</i>	0.046774
12	Up	Glycerolipid Metabolism	<i>Adh1C</i>	0.048978
12	Down	NRF2-mediated Oxidative Stress Response	<i>Sod2,Gstm3</i>	0.001698
12	Down	Riboflavin Metabolism	<i>Acpp</i>	0.007244
12	Down	IL-9 Signaling	<i>Cish</i>	0.012303
12	Down	Neuroprotective Role of THOP1 in Alzheimer's Disease	<i>Hla-G</i>	0.014454
12	Down	Antigen Presentation Pathway	<i>Hla-G</i>	0.014454
12	Down	Graft-versus-Host Disease Signaling	<i>Hla-G</i>	0.016596
12	Down	Autoimmune Thyroid Disease Signaling	<i>Hla-G</i>	0.016982
12	Down	Glutathione Metabolism	<i>Gstm3</i>	0.02138
12	Down	JAK/Stat Signaling	<i>Cish</i>	0.021878
12	Down	GM-CSF Signaling	<i>Cish</i>	0.022387
12	Down	Cytotoxic T Lymphocyte-mediated Apoptosis of Target Cells	<i>Hla-G</i>	0.02884
12	Down	Allograft Rejection Signaling	<i>Hla-G</i>	0.029512
12	Down	OX40 Signaling Pathway	<i>Hla-G</i>	0.030903
12	Down	Crosstalk between Dendritic Cells and Natural Killer Cells	<i>Hla-G</i>	0.032359
12	Down	Communication between Innate and Adaptive Immune Cells	<i>Hla-G</i>	0.032359
12	Down	Type I Diabetes Mellitus Signaling	<i>Hla-G</i>	0.038905
12	Down	Metabolism of Xenobiotics by Cytochrome P450	<i>Gstm3</i>	0.040738
12	Down	Mitochondrial Dysfunction	<i>Sod2</i>	0.047863
12	Down	Aryl Hydrocarbon Receptor Signaling	<i>Gstm3</i>	0.048978
24	Down	Pyruvate Metabolism	<i>Me2,Adh4</i>	0.001413
24	Down	Lysine Biosynthesis	<i>Adh4</i>	0.009333
24	Down	IL-9 Signaling	<i>Socs2</i>	0.028184
24	Down	Role of JAK2 in Hormone-like Cytokine Signaling	<i>Socs2</i>	0.02884
24	Down	Nitrogen Metabolism	<i>Ca3</i>	0.0302
24	Down	Pentose and Glucuronate Interconversions	<i>Adh4</i>	0.033113
24	Down	Retinol Metabolism	<i>Adh4</i>	0.037154
24	Down	Galactose Metabolism	<i>Adh4</i>	0.038905
24	Down	Axonal Guidance Signaling	<i>Rgs3,Fzd1</i>	0.041687
24	Down	Fructose and Mannose Metabolism	<i>Adh4</i>	0.042658
24	Down	Bile Acid Biosynthesis	<i>Adh4</i>	0.045709
24	Down	JAK/Stat Signaling	<i>Socs2</i>	0.050119
120	Up	Cell Cycle: G1/S Checkpoint Regulation	<i>Hdac4,Cdkn2B</i>	0.014454
120	Up	Cyclins and Cell Cycle Regulation	<i>Hdac4,Cdkn2B</i>	0.027542

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120	Up	Valine, Leucine and Isoleucine Biosynthesis	<i>Vars</i>	0.038019
120	Up	Role of IL-17A in Psoriasis	<i>S100A9</i>	0.041687
120	Down	Fatty Acid Biosynthesis	<i>Fasn,Acaca</i>	0.000214
120	Down	TR/RXR Activation	<i>Fasn,Acaca,Me1</i>	0.000891
120	Down	Mitotic Roles of Polo-Like Kinase	<i>Slk,Plk2</i>	0.008511
120	Down	Pyruvate Metabolism	<i>Acaca,Me1</i>	0.009772
120	Down	Tyrosine Metabolism	<i>Comt,Elov16</i>	0.011482
120	Down	LXR/RXR Activation	<i>Fasn,Acaca</i>	0.012589
120	Down	Dopamine Receptor Signaling	<i>Comt,PPP1R3C</i>	0.012589
120	Down	Glycerophospholipid Metabolism	<i>Bche,Elov16</i>	0.0302
120	Down	DNA Double-Strand Break Repair by Homologous Recombination	<i>Gen1</i>	0.030903
120	Down	AMPK Signaling	<i>Fasn,Acaca</i>	0.036308
120	Down	Polyamine Regulation in Colon Cancer	<i>Myc</i>	0.047863

Microarray analysis in liver following burn and CLP

Supplementary Table 2. Total Number of Genes Identified as Significantly Different via SAM

Number of Genes Identified by SAM at each time point

	2h	4h	8h	12h	16h	20h	24h	48 hr	120 hr	196 hr
Up regulation	45	9	82	10	0	0	0	0	107	0
Down regulation	144	426	15	11	0	0	35	0	73	0