Supplemental table S7. GO terms significantly enriched in significantly up-regulated genes of the microarray. K: number of genes from the input cluster in the given category. F: number of total genes in the given category.

Biological Process GO Terms: Over Representation		Sorting Results by: the p-Value in an ascending order.		
Category	GO Level	p-value	k	f
[GO:0048856] anatomical structure development	2	6.66E-16	150	1998
[GO:0001501] skeletal development	4	3.77E-15	30	198
[GO:0006817] phosphate transport	10	8.99E-15	20	86
[GO:0048513] organ development	3	1.18E-14	96	1234
[GO:0007155] cell adhesion	2	1.25E-14	60	668
[GO:0000902] cell morphogenesis	8	1.43E-14	43	473
[GO:0007275] development	1	1.55E-14	172	2523
[GO:0009653] morphogenesis	3	2.68E-14	86	1166
[GO:0048519] negative regulation of biological process	2	3.55E-14	70	1043
[GO:0030154] cell differentiation	3	4.09E-14	75	1081
[GO:0050789] regulation of biological process	1	1.77E-13	164	4223
[GO:0050875] cellular physiological process	3	2.52E-13	329	10888
[GO:0015698] inorganic anion transport	9	4.96E-13	24	163
[GO:0048523] negative regulation of cellular process	5	1.59E-12	60	955
[GO:0008150] biological_process	0	1.96E-12	448	16056
[GO:0009987] cellular process	1	2.88E-12	391	13877
[GO:0048731] system development	3	3.37E-12	50	718
[GO:0007399] nervous system development	4	8.10E-12	47	662
[GO:0048468] cell development	4	1.05E-11	39	481
[GO:0009887] organ morphogenesis	5	1.24E-11	45	622
[GO:0007582] physiological process	1	1.30E-11	370	13342
[GO:0006820] anion transport	8	1.61E-11	24	191
[GO:0051234] establishment of localization	3	1.79E-11	122	2935
[GO:0051179] localization	2	2.04E-11	123	2975
[GO:0008283] cell proliferation	4	2.61E-11	45	636
[GO:0001944] vasculature development	4	7.41E-11	23	188

[GO:0007167] enzyme linked receptor protein signaling pathway	5	1.14E-10	28	284
[GO:0001568] blood vessel development	5	3.35E-10	22	185
[GO:0043118] negative regulation of physiological process	5	3.46E-10	52	871
[GO:0009888] tissue development	3	5.49E-10	28	304
[GO:0040011] locomotion	2	6.01E-10	32	390
[GO:0016049] cell growth	11	1.32E-09	18	131
[GO:0006928] cell motility	8	1.47E-09	31	382
[GO:0051674] localization of cell	3	1.47E-09	31	382
[GO:0001525] angiogenesis	9	1.70E-09	18	133
[GO:0007517] muscle development	4	1.70E-09	20	166
[GO:0008361] regulation of cell size	9	2.17E-09	18	135
[GO:0051239] regulation of organismal physiological process	5	3.91E-09	24	249
[GO:0050791] regulation of physiological process	3	5.86E-09	136	3719
[GO:0042060] wound healing	8	6.08E-09	15	97
[GO:0009611] response to wounding	4	6.33E-09	29	361
[GO:0022008] neurogenesis	8	8.06E-09	27	321
[GO:0002245] physiological response to wounding	7	1.19E-08	28	349
[GO:0048699] generation of neurons	9	2.86E-08	25	297
[GO:0048514] blood vessel morphogenesis	8	2.99E-08	18	159
[GO:0009605] response to external stimulus	2	3.12E-08	35	533
[GO:0030198] extracellular matrix organization and biogenesis	5	3.99E-08	13	81
[GO:0043062] extracellular structure organization and biogenesis	2	3.99E-08	13	81
[GO:0050794] regulation of cellular process	3	4.89E-08	135	3808
[GO:0016043] cell organization and biogenesis	4	5.19E-08	89	2181
[GO:0048771] tissue remodeling	3	6.30E-08	14	99
[GO:0050793] regulation of development	3	1.19E-07	19	193
[GO:0045445] myoblast differentiation	12	1.20E-07	9	37
[GO:0006811] ion transport	7	1.20E-07	42	751
[GO:0007160] cell-matrix adhesion	4	1.86E-07	12	77
[GO:0042692] muscle cell differentiation	4	2.12E-07	10	51
[GO:0046849] bone remodeling	4	2.14E-07	13	93
[GO:0031589] cell-substrate adhesion	3	2.15E-07	12	78

[GO:0030199] collagen fibril organization	6	2.18E-07	6	13
[GO:0030182] neuron differentiation	10	2.18E-07	22	263
[GO:0031175] neurite development	18	2.38E-07	18	182
[GO:0007010] cytoskeleton organization and biogenesis	6	2.45E-07	33	528
[GO:0007015] actin filament organization	9	2.57E-07	10	52
[GO:0048666] neuron development	11	2.84E-07	19	204
[GO:0040007] growth	1	2.95E-07	20	225
[GO:0051243] negative regulation of cellular physiological process	11	3.14E-07	44	835
[GO:0042127] regulation of cell proliferation	9	3.88E-07	28	412
[GO:0048518] positive regulation of biological process	2	4.29E-07	52	1081
[GO:0007409] axonogenesis	23	4.38E-07	16	151
[GO:0001503] ossification	11	4.94E-07	12	84
[GO:0007178] transmembrane receptor protein serine/threonine kinase signaling pathway	6	5.64E-07	12	85
[GO:0031214] biomineral formation	4	5.64E-07	12	85
[GO:0016477] cell migration	9	6.01E-07	22	279
[GO:0030030] cell projection organization and biogenesis	9	7.23E-07	20	238
[GO:0048812] neurite morphogenesis	22	8.10E-07	16	158
[GO:0048858] cell projection morphogenesis	9	8.10E-07	16	158
[GO:0048667] neuron morphogenesis during differentiation	18	8.10E-07	16	158
[GO:0000904] cellular morphogenesis during differentiation	11	8.44E-07	17	178
[GO:0050817] coagulation	2	8.58E-07	11	73
[GO:0050818] regulation of coagulation	5	1.46E-06	5	10
[GO:0030278] regulation of ossification	16	1.50E-06	7	26
[GO:0016055] Wnt receptor signaling pathway	5	2.09E-06	13	113
[GO:0007267] cell-cell signaling	3	2.14E-06	31	528
[GO:0007519] striated muscle development	5	2.66E-06	12	98
[GO:0048741] skeletal muscle fiber development	8	3.08E-06	9	53
[GO:0048747] muscle fiber development	5	3.08E-06	9	53
[GO:0046850] regulation of bone remodeling	8	3.34E-06	7	29
[GO:0051093] negative regulation of development	5	3.56E-06	11	84
[GO:0006810] transport	6	4.34E-06	93	2558

[GO:0048637] skeletal muscle development	6	4.95E-06	9	56
[GO:0045595] regulation of cell differentiation	7	4.97E-06	14	141
[GO:0007596] blood coagulation	13	5.78E-06	10	72
[GO:0030029] actin filament-based process	7	8.09E-06	17	210
[GO:0050878] regulation of body fluids	3	9.71E-06	11	93
[GO:0007599] hemostasis	4	1.07E-05	10	77
[GO:0007412] axon target recognition	25	1.22E-05	3	3
[GO:0045765] regulation of angiogenesis	10	1.28E-05	7	35
[GO:0030178] negative regulation of Wnt receptor signaling pathway	13	1.59E-05	5	15
[GO:0007169] transmembrane receptor protein tyrosine kinase signaling pathway	6	1.59E-05	15	177
[GO:0021700] developmental maturation	2	1.74E-05	9	65
[GO:0048469] cell maturation	6	1.74E-05	9	65
[GO:0045596] negative regulation of cell differentiation	11	2.52E-05	9	68
[GO:0009966] regulation of signal transduction	6	2.66E-05	23	379
[GO:0006950] response to stress	2	2.68E-05	40	868
[GO:0016525] negative regulation of angiogenesis	11	3.15E-05	5	17
[GO:0050819] negative regulation of coagulation	8	3.21E-05	4	9
[GO:0001558] regulation of cell growth	17	4.78E-05	11	110
[GO:0008284] positive regulation of cell proliferation	14	5.25E-05	15	196
[GO:0007229] integrin-mediated signaling pathway	5	5.66E-05	10	93
[GO:0000074] regulation of progression through cell cycle	10	7.61E-05	25	461
[GO:0051726] regulation of cell cycle	9	8.15E-05	25	463
[GO:0051244] regulation of cellular physiological process	7	8.35E-05	113	3509
[GO:0007411] axon guidance	30	0.000103	9	81
[GO:0048146] positive regulation of fibroblast proliferation	17	0.000118	3	5
[GO:0030239] myofibril assembly	27	0.00012	4	12
[GO:0055001] muscle cell development	6	0.00012	4	12
[GO:0055002] striated muscle cell development	12	0.00012	4	12
[GO:0030111] regulation of Wnt receptor signaling pathway	9	0.000122	5	22
[GO:0007154] cell communication	2	0.00013	140	4597
[GO:0051216] cartilage development	6	0.000134	6	35
[GO:0006633] fatty acid biosynthesis	17	0.000134	8	66

[GO:0046851] negative regulation of bone remodeling	12	0.000169	4	13
[GO:0001502] cartilage condensation	7	0.000169	4	13
[GO:0043009] embryonic development (sensu Vertebrata)	4	0.0002	10	108
[GO:0043119] positive regulation of physiological process	5	0.000242	37	865
[GO:0007179] transforming growth factor beta receptor signaling pathway	7	0.000259	7	55
[GO:0006936] muscle contraction	3	0.000264	11	133
[GO:0008285] negative regulation of cell proliferation	14	0.000274	13	179
[GO:0030282] bone mineralization	12	0.000282	5	26
[GO:0009790] embryonic development	2	0.000299	21	389
[GO:0016053] organic acid biosynthesis	9	0.0003	8	74
[GO:0046394] carboxylic acid biosynthesis	11	0.0003	8	74
[GO:0001654] eye development	5	0.000322	9	94
[GO:0035295] tube development	3	0.000341	11	137
[GO:0045087] innate immune response	9	0.000395	8	77
[GO:0007567] parturition	8	0.000399	3	7
[GO:0042552] myelination	15	0.000405	5	28
[GO:0051241] negative regulation of organismal physiological process	8	0.000405	5	28
[GO:0051146] striated muscle cell differentiation	9	0.000408	4	16
[GO:0030500] regulation of bone mineralization	18	0.000408	4	16
[GO:0007610] behavior	2	0.000418	19	343
[GO:0030036] actin cytoskeleton organization and biogenesis	8	0.000463	13	189
[GO:0009792] embryonic development (sensu Metazoa)	3	0.000603	12	170
[GO:0008544] epidermis development	5	0.000647	10	125
[GO:0002526] acute inflammatory response	12	0.000656	8	83
[GO:0007272] ensheathment of neurons	13	0.000662	5	31
[GO:0008366] axon ensheathment	14	0.000662	5	31
[GO:0051094] positive regulation of development	5	0.000664	7	64
[GO:0019226] transmission of nerve impulse	7	0.000668	17	301
[GO:0048522] positive regulation of cellular process	5	0.000766	35	854
[GO:0007049] cell cycle	4	0.000771	32	757
[GO:0051240] positive regulation of organismal physiological process	8	0.000779	9	106
[GO:0030324] lung development	8	0.000788	6	48

[GO:0048628] myoblast maturation	17	0.000823	4	19
[GO:0009968] negative regulation of signal transduction	9	0.000831	8	86
[GO:0030323] respiratory tube development	7	0.000881	6	49
[GO:0048627] myoblast development	14	0.00101	4	20
[GO:0042476] odontogenesis	6	0.001024	5	34
[GO:0008219] cell death	5	0.001101	30	709
[GO:0016265] death	2	0.001126	30	710
[GO:0007398] ectoderm development	4	0.001172	10	135
[GO:0040008] regulation of growth	3	0.001186	11	159
[GO:0006954] inflammatory response	11	0.001187	15	262
[GO:0045661] regulation of myoblast differentiation	17	0.001298	3	10
[GO:0030279] negative regulation of ossification	21	0.001298	3	10
[GO:0042981] regulation of apoptosis	13	0.001443	22	470
[GO:0001955] blood vessel maturation	6	0.001569	2	3
[GO:0019369] arachidonic acid metabolism	12	0.001569	2	3
[GO:0043067] regulation of programmed cell death	11	0.001692	22	476
[GO:0048145] regulation of fibroblast proliferation	11	0.001754	3	11
[GO:0048144] fibroblast proliferation	5	0.001754	3	11
[GO:0006929] substrate-bound cell migration	10	0.001754	3	11
[GO:0050790] regulation of catalytic activity	2	0.001756	17	329
[GO:0008015] circulation	3	0.001871	9	120
[GO:0001508] regulation of action potential	8	0.001929	5	39
[GO:0006631] fatty acid metabolism	11	0.002024	11	170
[GO:0001747] eye development (sensu Mammalia)	7	0.002143	6	58
[GO:0050767] regulation of neurogenesis	12	0.002163	5	40
[GO:0042088] T-helper 1 type immune response	9	0.002299	3	12
[GO:0048820] hair follicle maturation	11	0.002299	3	12
[GO:0006636] fatty acid desaturation	12	0.002299	3	12
[GO:0048015] phosphoinositide-mediated signaling	6	0.002307	7	79
[GO:0007422] peripheral nervous system development	5	0.002408	4	25
[GO:0048592] eye morphogenesis	8	0.002418	5	41
[GO:0050874] organismal physiological process	2	0.00242	97	3204

[GO:0043010] eye development (sensu Vertebrata)	6	0.002551	6	60
[GO:0006508] proteolysis	11	0.002553	32	816
[GO:0048562] embryonic organ morphogenesis	9	0.002795	4	26
[GO:0030335] positive regulation of cell migration	23	0.002937	3	13
[GO:0006693] prostaglandin metabolism	14	0.002937	3	13
[GO:0006692] prostanoid metabolism	13	0.002937	3	13
[GO:0007242] intracellular signaling cascade	4	0.003019	44	1240
[GO:0043350] neuroblast proliferation (sensu Vertebrata)	14	0.003091	2	4
[GO:0006930] substrate-bound cell migration, cell extension	11	0.003091	2	4
[GO:0021675] nerve development	3	0.003091	2	4
[GO:0045662] negative regulation of myoblast differentiation	22	0.003091	2	4
[GO:0048661] positive regulation of smooth muscle cell proliferation	17	0.003091	2	4
[GO:0042759] long-chain fatty acid biosynthesis	19	0.003091	2	4
[GO:0050832] defense response to fungus	9	0.003091	2	4
[GO:0006956] complement activation	39	0.003312	5	44
[GO:0002541] activation of plasma proteins during acute inflammatory response	23	0.003312	5	44
[GO:0050778] positive regulation of immune response	16	0.003492	7	85
[GO:0002684] positive regulation of immune system process	11	0.003492	7	85
[GO:0051270] regulation of cell motility	14	0.003537	6	64
[GO:0007423] sensory organ development	4	0.003567	10	157
[GO:0009620] response to fungus	4	0.003675	3	14
[GO:0001756] somitogenesis	8	0.003692	4	28
[GO:0006958] complement activation, classical pathway	47	0.003692	4	28
[GO:0006915] apoptosis	7	0.003758	27	670
[GO:0043066] negative regulation of apoptosis	19	0.003885	11	185
[GO:0006916] anti-apoptosis	20	0.003942	9	134
[GO:0016337] cell-cell adhesion	3	0.003959	13	240
[GO:0002460] adaptive immune response (sensu Gnathostomata)	8	0.003976	7	87
[GO:0002250] adaptive immune response	7	0.003976	7	87
[GO:0002455] humoral immune response mediated by circulating immunoglobulin	15	0.004205	4	29
[GO:0001657] ureteric bud development	8	0.004205	4	29
[GO:0043085] positive regulation of enzyme activity	4	0.004385	11	188

[GO:0043069] negative regulation of programmed cell death	16	0.004385	11	188
[GO:0040012] regulation of locomotion	5	0.004444	6	67
[GO:0048595] eye morphogenesis (sensu Mammalia)	17	0.004516	3	15
[GO:0008543] fibroblast growth factor receptor signaling pathway	7	0.004516	3	15
[GO:0009612] response to mechanical stimulus	4	0.004516	3	15
[GO:0012501] programmed cell death	6	0.004663	27	681
[GO:0042475] odontogenesis (sensu Vertebrata)	7	0.004765	4	30
[GO:0010002] cardioblast differentiation	10	0.005072	2	5
[GO:0030501] positive regulation of bone mineralization	24	0.005072	2	5
[GO:0048157] oogenesis (sensu Mammalia)	6	0.005072	2	5
[GO:0048008] platelet-derived growth factor receptor signaling pathway	7	0.005072	2	5
[GO:0021537] telencephalon development	9	0.005072	2	5
[GO:0042730] fibrinolysis	22	0.005072	2	5
[GO:0051090] regulation of transcription factor activity	17	0.005373	4	31
[GO:0006690] icosanoid metabolism	12	0.005373	4	31
[GO:0048593] eye morphogenesis (sensu Vertebrata)	10	0.005463	3	16
[GO:0016202] regulation of striated muscle development	6	0.005463	3	16
[GO:0007281] germ cell development	8	0.006031	4	32
[GO:0035239] tube morphogenesis	5	0.006075	7	94
[GO:0001822] kidney development	6	0.006282	5	51
[GO:0050769] positive regulation of neurogenesis	15	0.006522	3	17
[GO:0040017] positive regulation of locomotion	8	0.006522	3	17
[GO:0007405] neuroblast proliferation	13	0.006522	3	17
[GO:0051272] positive regulation of cell motility	20	0.006522	3	17
[GO:0009408] response to heat	5	0.00674	4	33
[GO:0007165] signal transduction	3	0.006898	122	4319
[GO:0007498] mesoderm development	4	0.007393	5	53
[GO:0007638] mechanosensory behavior	6	0.007493	2	6
[GO:0030193] regulation of blood coagulation	17	0.007493	2	6
[GO:0048660] regulation of smooth muscle cell proliferation	11	0.007493	2	6
[GO:0045410] positive regulation of interleukin-6 biosynthesis	44	0.007493	2	6
[GO:0051057] positive regulation of small GTPase mediated signal transduction	10	0.007493	2	6

[GO:0030195] negative regulation of blood coagulation	21	0.007493	2	6
[GO:0051242] positive regulation of cellular physiological process	11	0.007529	29	775
[GO:0001701] embryonic development (sensu Mammalia)	5	0.007691	6	75
[GO:0048048] embryonic eye morphogenesis	13	0.007694	3	18
[GO:0006809] nitric oxide biosynthesis	6	0.007694	3	18
[GO:0046209] nitric oxide metabolism	4	0.007694	3	18
[GO:0007268] synaptic transmission	8	0.007869	13	261
[GO:0007017] microtubule-based process	7	0.008256	11	205
[GO:0007162] negative regulation of cell adhesion	8	0.008982	3	19
[GO:0045859] regulation of protein kinase activity	5	0.009149	10	180
[GO:0007626] locomotory behavior	3	0.009153	11	208
[GO:0048568] embryonic organ development	5	0.009191	4	36
[GO:0006937] regulation of muscle contraction	7	0.009191	4	36
[GO:0030334] regulation of cell migration	16	0.009305	5	56