

Table 5: Lung Cancer: Gene Sets Enriched in Metagene Factor 1

No.	Gene set	Description	ES	P	FDR
1	TARTE_PLASMA_BLAISTIC	Genes overexpressed in mature plasma cells isolated from tonsils (TPCs) and mature plasma cells isolated from bone marrow (BMPCs) as compared to polyclonal plasmablastic cells (PPCs)	2.576	0.002	0.012
2	BASSO_REGULATORY_HUBS_SET	Genes which comprise the top 1% of highly interconnected genes (major hubs) that account for most of the interactions in the reconstructed regulatory networks from expression profiles in human B cells.	2.350	0.002	0.067
3	MRNA_PROCESSING_REACTOME	mRNA processing	2.167	0.002	0.175
4	PENG_Glutamine_DOWN	Genes downregulated in response to glutamine starvation	2.130	0.004	0.174
5	5CANCER_UNDIFFERENTIATED_META_UP	Sixty-nine genes commonly upregulated in undifferentiated cancer relative to well-differentiated cancer, from a meta-analysis of the OncoMine gene expression	2.090	0.002	0.195
6	HUMAN_MITODB_6_2002	CURT: Expert curation	2.066	0.008	0.188
7	BRCA1_IRRADIATED_UP	Up-regulated in germline-mutant BRCA1 tumor cells compared to non-BRCA1 control tumors, following 15 Gy irradiation	2.066	0.004	0.161
8	HDACI_COLON_BUT16HRS_DN	Downregulated by butyrate at 16 hrs in SW260 colon carcinoma cells	2.037	0.002	0.173
9	MITOCHONDRIA	Mitochondrial genes	2.014	0.016	0.180
10	VENTRICLES_UP	Upregulated in the ventricles of healthy hearts, compared to atria	1.979	0.004	0.196
11	HDACI_COLON_BUT_DN	Downregulated by butyrate at any timepoint up to 48 hrs in SW260 colon carcinoma	1.967	0.008	0.199
12	GOLDRATH_HP	Genes upregulated in CD8+ T cells undergoing homeostatic proliferation (HP) versus naive CD8+ T cell populations; these genes are not upregulated versus effector or	1.955	0.004	0.201
13	ALZHEIMERS_DISEASE_DN	Downregulated in correlation with overt Alzheimer's Disease, in the CA1 region of the hippocampus	1.858	0.029	0.324
14	ELECTRON_TRANSPORT_CHAIN	Electron transport chain	1.834	0.065	0.344
15	PENG_RAPAMYCIN_DOWN	Genes downregulated in response to rapamycin	1.828	0.040	0.331
16	BHATTACHARYA_ESC_UP	Genes upregulated in undifferentiated human embryonic stem cells	1.797	0.012	0.372
17	PENG_LEUCINE_DOWN	Genes downregulated in response to leucine starvation	1.780	0.043	0.381
18	MYC_HUVEC_SAGE_ARRAY_UP	Genes up-regulated by MYC in HUVEC (umbilical vein endothelial cell)	1.777	0.023	0.366
19	VOXPPOS	Oxidative Phosphorylation	1.719	0.082	0.464
20	BRCA1_OVEREXP_DN	Downregulated by induction of exogenous BRCA1 in EcR-293 cells	1.683	0.021	0.523