

Additional file 8 - Biological processes (obtained from the PANTHER classification system) for the lung cancer study

Table: Biological processes for the lung cancer study according to (a) $D_0^{(NPH)}$ and to (b) $D_0^{(PH)}$

Biological process	# Genes NCBI	# observed	# expected	P-value
(a) Selection with $D_0^{(NPH)}$				
nucleobase, nucleoside, nucleotide and nucleic acid metabolic process	3825	53	30.74	$2.17 \cdot 10^{-5}$
metabolic process	8267	86	66.43	$1.20 \cdot 10^{-3}$
primary metabolic process	7950	83	63.88	$1.47 \cdot 10^{-3}$
<i>cell cycle</i>	1840	23	14.79	$2.25 \cdot 10^{-2}$
polyphosphate catabolic process	4	1	0.03	$3.16 \cdot 10^{-2}$
cellular component organization	1443	18	11.6	$4.24 \cdot 10^{-2}$
vesicle-mediated transport	1160	15	9.32	$4.75 \cdot 10^{-2}$
(b) Selection with $D_0^{(PH)}$				
oxidative phosphorylation	76	3	0.57	$2.02 \cdot 10^{-2}$
intracellular signaling cascade	1568	19	11.81	$2.72 \cdot 10^{-2}$
lipid metabolic process	1119	3	8.43	$2.83 \cdot 10^{-2}$
muscle contraction	448	0	3.38	$3.29 \cdot 10^{-2}$
spermatogenesis	501	8	3.77	$3.68 \cdot 10^{-2}$