

Table 6. Top 20 GO Biological Process Gene Sets Ranked by Potency of Perturbation (Sorted by BMD Median)

Category Name	Input Genes/Platform Genes in Gene Set	% Gene Set Coverage	BMD_{1Std} Median of Gene Set Transcripts (mg/kg)	Median BMD_{L1Std}-BMD_{U1Std} (mg/kg)	Genes with Changed Direction Up	Genes with Changed Direction Down
GO:0002548 monocyte chemotaxis	3/26	12%	<18.3	NR	0	3
GO:1904031 positive regulation of cyclin-dependent protein kinase activity	3/35	9%	<18.3	NR	1	2
GO:0045739 positive regulation of DNA repair	5/45	11%	<18.3	NR	3	2
GO:0007095 mitotic G2 DNA damage checkpoint	3/17	18%	<18.3	NR	2	1
GO:0031572 G2 DNA damage checkpoint	3/17	18%	<18.3	NR	2	1
GO:0032330 regulation of chondrocyte differentiation	3/36	8%	<18.3	NR	2	1
GO:0090181 regulation of cholesterol metabolic process	3/27	11%	<18.3	NR	3	0
GO:0060192	3/13	23%	<18.3	NR	1	2

negative regulation of lipase activity GO:1901264	3/48	6%	<18.3	NR	3	0
carbohydrate derivative transport GO:0009914	5/91	5%	<18.3	NR	2	3
hormone transport GO:0001942	3/35	9%	<18.3	NR	1	2
hair follicle development GO:0044773	4/35	11%	<18.3	NR	3	1
mitotic DNA damage checkpoint GO:0010972	4/35	11%	<18.3	NR	3	1
negative regulation of G2/M transition of mitotic cell cycle GO:0042698	5/43	12%	<18.3	NR	2	3
ovulation cycle GO:0033692	3/25	12%	19	11-42	3	0
cellular polysaccharide biosynthetic process GO:0014003	3/31	10%	19	11-39	3	0
oligodendrocyte development GO:0060487	3/28	11%	22	9-64	3	0
lung epithelial cell differentiation GO:0051453	4/60	7%	23	6-95	1	3
regulation of intracellular						

pH GO:0030004 cellular monovalent inorganic cation homeostasis	6/79	8%	24	6-98	2	4
GO:0072348 sulfur compound transport	4/27	15%	25	14-59	1	3

NR = The BMDL-BMDU range is not reportable because the BMD median is below the lower limit of extrapolation (less than 1/3 of the lowest tested dose in this study).