Additional file 1.

1-(a). Significant pathways in Dataset 1

[1] KEGG O-Glycan biosynthesis
[2] KEGG metabolism of xenobiotics by cytochrome P450
[3] KEGG drug metabolism - cytochrome P450
[4] KEGG spliceosome
[5] KEGG PPAR signaling pathway
[7] KEGG insulin signaling pathway
[8] KEGG adipocytokin signaling pathway
[9] BIOCARTA no.1 pathway
[10] BIOCARTA PPARa pathway
[12] PID IL-21 pathway
[13] PID IL-67 pathway
[14] REACTOME glycogen breakdown (glycogenolysis)
[15] REACTOME base excision repair
[16] REACTOME cell cycle
[17] REACTOME processing of capped intron-containing pre-mRNA
[18] REACTOME biological oxidations
[19] REACTOME phase1 functionalization of compounds
[20] REACTOME cell cycle mitotic
[21] REACTOME cell cycle checkpoints
[22] REACTOME mRNA processing
[23] REACTOME mRNA splicing
[24] REACTOME processing of capped intronless pre-mRNA
[25] REACTOME mRNA 3’-end processing
[26] REACTOME Zinc transporters
[27] REACTOME mitotic M-M/G1 phases
[28] REACTOME chromosome maintenance
[29] REACTOME deposition of new CENPA-containing nucleosomes at the centromere

[30] REACTOME transcriptional regulation of white adipocyte differentiation

[31] REACTOME DNA replication

[32] REACTOME cleavage of growing transcript in the termination region

[33] REACTOME early phase of HIV life cycle

[34] REACTOME mitotic prometaphase

[35] REACTOME telomere maintenance

[36] REACTOME DNA strand elongation

1-(b). Top 10 interesting pathway-sets obtained from Dataset 1

{pw1 \downarrow, pw2 \uparrow, pw3 \uparrow, pw5 \uparrow, pw7 \uparrow, pw8 \uparrow, pw9 \uparrow, pw10 \uparrow, pw11 \uparrow, pw13 \uparrow, pw14 \uparrow, pw16 \uparrow, pw18 \uparrow, pw19 \uparrow, pw20 \downarrow, pw30 \uparrow} \Rightarrow \{\text{control}\}

{pw2 \uparrow, pw3 \uparrow, pw5 \uparrow, pw7 \uparrow, pw8 \uparrow, pw10 \uparrow, pw11 \uparrow, pw12 \uparrow, pw13 \uparrow, pw14 \uparrow, pw16 \uparrow, pw18 \uparrow, pw19 \uparrow, pw20 \downarrow, pw30 \uparrow} \Rightarrow \{\text{control}\}

{pw2 \uparrow, pw3 \uparrow, pw5 \uparrow, pw7 \uparrow, pw8 \uparrow, pw9 \uparrow, pw10 \uparrow, pw11 \uparrow, pw13 \uparrow, pw14 \uparrow, pw16 \uparrow, pw18 \uparrow, pw19 \uparrow, pw20 \downarrow, pw30 \uparrow, pw31 \downarrow} \Rightarrow \{\text{control}\}

{pw2 \uparrow, pw3 \uparrow, pw5 \uparrow, pw7 \uparrow, pw8 \uparrow, pw9 \uparrow, pw10 \uparrow, pw11 \uparrow, pw12 \uparrow, pw13 \uparrow, pw14 \uparrow, pw18 \uparrow, pw19 \uparrow, pw30 \uparrow} \Rightarrow \{\text{control}\}

{pw2 \uparrow, pw3 \uparrow, pw5 \uparrow, pw7 \uparrow, pw8 \uparrow, pw10 \uparrow, pw11 \uparrow, pw13 \uparrow, pw14 \uparrow, pw18 \uparrow, pw19 \uparrow, pw28 \uparrow, pw30 \uparrow} \Rightarrow \{\text{control}\}

{pw5 \downarrow, pw16 \uparrow, pw20 \uparrow, pw30 \downarrow} \Rightarrow \{\text{case}\}

{pw12 \downarrow, pw16 \uparrow, pw20 \uparrow} \Rightarrow \{\text{case}\}

{pw5 \downarrow, pw21 \uparrow, pw30 \downarrow} \Rightarrow \{\text{case}\}

{pw5 \downarrow, pw16 \uparrow, pw20 \uparrow, pw27 \uparrow, pw30 \downarrow, pw31 \uparrow} \Rightarrow \{\text{case}\}

{pw5 \downarrow, pw9 \downarrow, pw16 \uparrow, pw20 \uparrow, pw30 \downarrow} \Rightarrow \{\text{case}\}