

### **Additional file 3. Genes in over-represented GO terms under Biological Process**

regulation of biological process GO:0050789

AR|ARID1B|ASCL1|ATXN3|MAGI1|BMP2K|CACNA1A|CHERP|CIZ1|CREBBP|  
FOXP2|HD|MAML2|MAML3|MED12|MEF2A|MLL2|MN1|NCOA3|NCOA6|NCOR2|  
NFAT5|PCQAP|PHLDA1|POU3F2|POU6F2|PRDM10|PRKCBP1|RAI1|RUNX2|SATB1  
|SMARCA2|SOCS7|TBP|TFEB|VEZF1|ZNF384

regulation of physiological process GO:0050791

AR|ARID1B|ASCL1|ATXN3|BMP2K|CACNA1A|CHERP|CIZ1|CREBBP|FOXP2|HD|  
MAML2|MAML3|MED12|MEF2A|MLL2|MN1|NCOA3|NCOA6|NCOR2|NFAT5|  
PCQAP|PHLDA1|POU3F2|POU6F2|PRDM10|PRKCBP1|RAI1|RUNX2|SATB1|  
SMARCA2|SOCS7|TBP|TFEB|VEZF1|ZNF384

regulation of metabolism GO:0019222

AR|ARID1B|ASCL1|ATXN3|CACNA1A|CREBBP|FOXP2|MAML2|MAML3|MED12|  
MEF2A|MLL2|NCOA3|NCOA6|NCOR2|NFAT5|PCQAP|POU3F2|POU6F2|PRDM10|  
PRKCBP1|RAI1|RUNX2|SATB1|SMARCA2|TBP|TFEB|VEZF1|ZNF384

positive regulation of metabolism GO:0009893

ARID1B|CREBBP|MAML2|MAML3|NCOA6|NFAT5|RUNX2

nucleobase, nucleoside, nucleotide and nucleic acid metabolism GO:0006139

AR|ARID1B|ASCL1|ATXN3|CACNA1A|CHERP|CIZ1|CREBBP|DCP1B|EP400|  
FOXP2|MAML2|MAML3|MED12|MEF2A|MLL2|NCOA3|NCOA6|NCOR2|NFAT5|  
PCQAP|POLG|POU3F2|POU6F2|PRDM10|PRKCBP1|RAI1|RUNX2|SATB1|  
SMARCA2|TBP|TFEB|VEZF1|ZNF384