NCBI Acc. Num.	Gene name	Forward sequence (5'-3')	Reverse sequence (5'-3')	Size (bp)
NM_008987.3	h-PTX3	TGTTGAGATGGCCACAGG	TCAGACCTTCCCAACTGG	341
NM_005195.3	h-CEBPD	AGCGCAACAACATCGCCGTG	GTCGGGTCTGAGGTATGGGTC	267
NM_002046.3	h-GAPDH	CCATCACCATCTTCCAGGAG	CCTGCTTCACCACCTTCTTG	576
NM_003467.2	h-CXCR4	CTCAAGATCCTCTCCAAAGG	TGATTCACTACACGCTCTGG	373
NM_030641.3	h-APOL6	TGAAGTCTTCTACCTGGAGG	ATTGGTCCTGTCCAGAAAGG	188
NM_001638.2	h-APOF	AGTCACAGGGTTTGGTTTCG	CTACAAGCGTGCATAACTCC	369
NM_007115.2	h-TNFAIP6	TGATGCTTCAGTGACAGCTG	TGCAGTGGGATTATGAGAGG	333
NM_002421.2	h-MMP1	GTGTGAGTCCAAAGAAGGTG	TCTTGAGCTGCTTTTCCTCC	355
NM_002425.1	h-MMP10	GGAAATGAGGTACAAGCAGG	CAGTCACAGAACATGCAGG	450
NM_000743.2	h-CHRNA3	TTCTCAGCCTTAGCACTACG	TGGCATCTAGTGAGTTGAGG	120
NM_006072.4	h-CCL26	CTTCCAATACAGCCACAAGC	TTCCTTGGATGGGTACAGAC	132
NM_004244.4	h-CD163	AGCTGATTTCAGTGCTGCTG	AGCAGCAGTCTTAGGAATCC	250
NM_138621.3	h-BCL2L11	AAGAAGCATCCTCAAGCTCC	AATGCTACATACGCTGGGTC	212
NM_001901.2	h-CTGF	CTGTCGATTAGACTGGACAG	AGTGAGGCTACCACATTTCC	380
NM_002007.2	h-FGF4	GCACGTTCAAGGAGATTCTC	TCATCCGAAGAAAGTGCACC	243
NM_000514.2	h-GDNF	CAGTGCTTCCTAGAAGAGAG	TTGTCGTACGTTGTCTCAGC	223
NM_006206.4	h-PDGFRA	AAGCTGTATCACTGCCTTCG	TCTCACACATTCACCACACC	160
NM_145733.2	h-SEPT3	TTGCGAATGTTGACTGCCAC	TTGTTCTTGCATCCCCTAGG	179
NM_003246.2	h-THBS1	GCTCAGAGTGGATGTTATGG	GGGAATACTTCTCTGCAGAG	376
NM_016083.3	h-CNR1	GTCAGATGTTTGAGCAGTGG	GTTGCAACGATGTTACCAGC	293
NM_001841.1	h-CNR2	CACACAGTCTGTTGGATAGG	AGAGAGAAGACCTGGATGTC	243
NM_008987.3	m-PTX3	AGTTGAAGGGAAGGCTTGAG	TGAACAATGGGCAACAGAGC	241
NM_007679.4	m-CEBPD	ATCGCTGCAGCTTCCTATGT	GGTTAAGCCCGCAAACATTA	429
NM_001101.3	h-β-ACTIN	TCTTCATTGTGCTGGGTGCCA	TCTTCATGGTGCTAGGAGCCA	250

NCBI Acc. Num. : NCBI Accession Number ; h- : human ; m- : mouse

Supplemental Table 1: Primers list for RT-PCR

Up-regulated

Gene name	Sys. Num.	Function
ID2	NM_002166	Inflammation, Neurological Disease, and Cellular Growth and Proliferation
BCL2L11	NM_138621	Inflammation, Neurological Disease, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
CXCR4	NM_001008540	Inflammation, Neurological Disease, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
CASP8	NM_033355	Inflammation, Neurological Disease, Hematological Disease, Cell Death, and Cellular Growth and Proliferation
ITGA2	NM_002203	Inflammation and Neurological Disease
ALB	NM_000477	Inflammation, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
KITLG	NM_000899	Inflammation, Neurological Disease, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
ABCA1	NM_005502	Inflammation and Hematological Disease
EGR3	NM_004430	Inflammation, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
MMP1	NM_002421	Inflammation and Neurological Disease, Cell Death
SLC1A1	NM_004170	Neurological Disease
CHRNA3	NM_000743	Neurological Disease and Hematological Disease
GABRE	NM_021990	Neurological Disease
MAOB	NM_000898	Neurological Disease
BARHL1	NM_020064	Neurological Disease
MT1E	AF495759	Neurological Disease, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
MT1F	NM_005949	Neurological Disease, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
BMF	NM_001003940	Cell Death and Cellular Growth and Proliferation
PDGFRA	NM_006206	Cell Death, Hematological Disease, and Cellular Growth and Proliferation
SKI	ENST00000378536	Cell Death and Cellular Growth and Proliferation
CEBPA	NM_004364	Cell Death, Hematological Disease, and Cellular Growth and Proliferation
MMP10	NM_002425	Cell Death
MYC	NM_002467	Cell Death, Hematological Disease, and Cellular Growth and Proliferation
CEBPE	NM_001805	Cell Death, Hematological Disease, and Cellular Growth and Proliferation
CA2	NM_000067	Cell Death
PRLR	NM_000949	Cell Death, Hematological Disease, and Cellular Growth and Proliferation
MMP3	NM_002422	Cell Death and Cellular Growth and Proliferation
ALDOA	NM_184041	Hematological Disease
PTX3	NM_002852	Hematological Disease
TNFAIP6	NM_007115	Cellular Growth and Proliferation
RGS2	NM_002923	Cellular Growth and Proliferation
IL22RA1	NM_021258	Inflammation
CCL26	NM_006072	Inflammation, Cellular Movement, and Cellular Development
MARK1	NM_018650	Kinase Activity
LHX6	NM_014368	Organ Development, Cellular Movement, Cellular Development, and Nervous System Development and Function
ETV1	NM_004956	Tissue Development, Skeletal and Muscular System Development and Function, and Genetic Disorder
ADAMTS5	NM_007038	Inflammatory Disease, Connective Tissue Disorders, and Skeletal and Muscular Disorders
S100A5	NM_002962	Calcium Ion Binding
LRRK2	NM_198578	Inflammation, Connective Tissue Disorders, and Post-Translational Modification
RHOU	NM_021205	Cellular Development, Cell Morphology, and Cellular Assembly and Organization
ME1	NM_002395	Small Molecule Biochemistry and Energy Production
APOL6	NM_030641	Lipid Binding and Lipid Transporter Activity
RGS16	NM_002928	Genetic Disorder and Gene Expression
IL1F7	NM_014439	Inflammation
NOX3	NM_015718	Superoxide-Generating NADPH Oxidase Activity
NPL	NM_030769	N-Acetylneuraminate Lyase Activity and Lyase Activity
RIMS3	NM_014747	Genetic Disorder
MT1M	NM_176870	Genetic Disorder

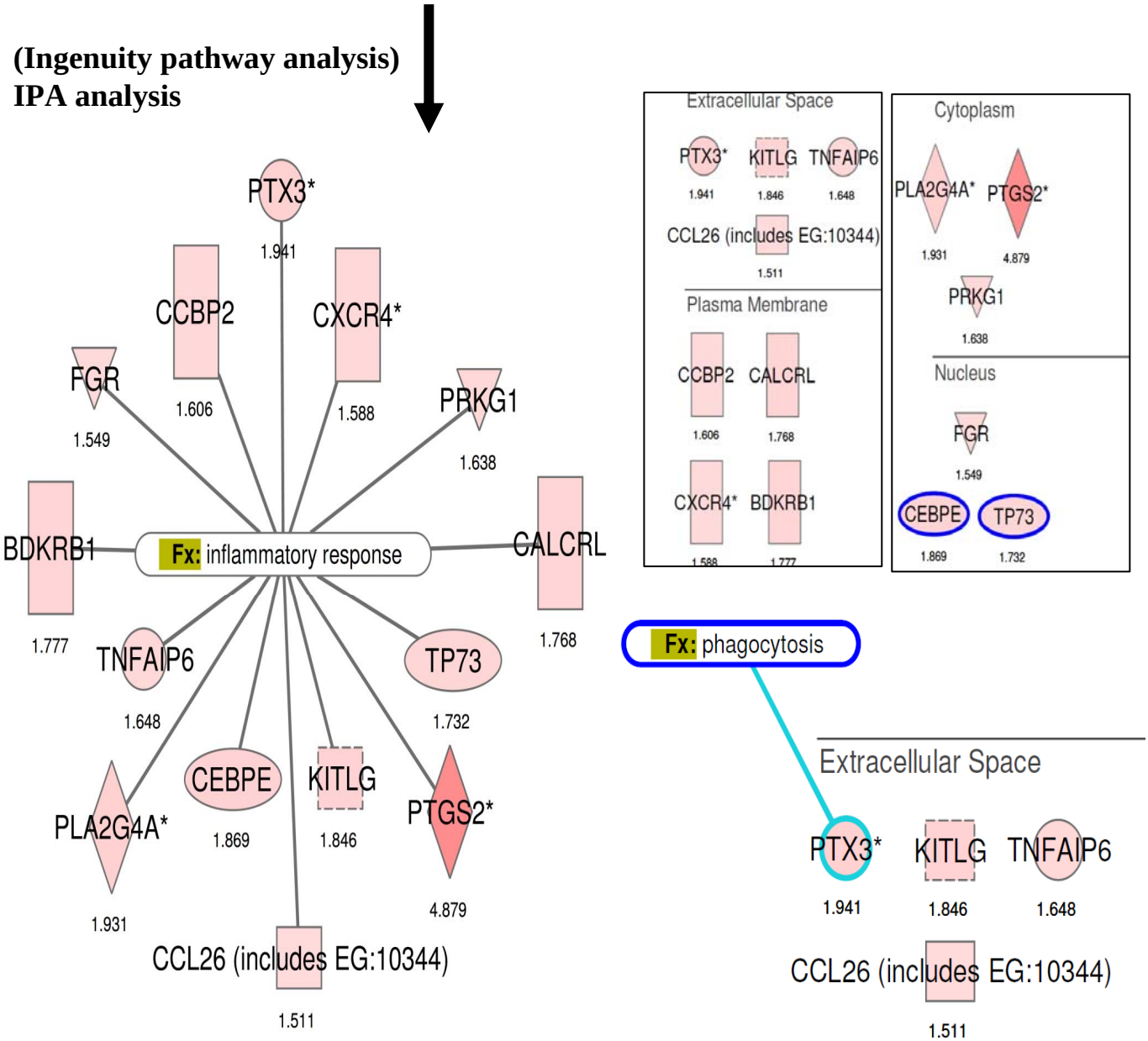
Supplemental Table 2: CEBPD-responsive genes in U373MG cells

Down-regulated		
Gene name	**Sys. Num**	**Function**
FGF4	NM_002007	Inflammation, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
ABL1	NM_005157	Inflammation
ADAMTS13	NM_139025	Inflammation, Hematological Disease
THBS1	NM_003246	Inflammation, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
SYK	NM_003177	Inflammation, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
BCL2L1	NM_001191	Inflammation, Neurological Disease, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
AKT1	NM_005163	Inflammation, Neurological Disease, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
DTX1	NM_004416	Inflammation
BAX	NM_138765	Inflammation, Neurological Disease, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
SRF	NM_003131	Inflammation, Cell Death, and Cellular Growth and Proliferation
CACNA2D2	NM_001005505	Neurological Disease, Cell Death, and Cellular Growth and Proliferation
CHRND	NM_000751	Neurological Disease and Hematological Disease
NFATC4	NM_004554	Neurological Disease
ALK	NM_004304	Neurological Disease
GDNF	ENST00000381827	Neurological Disease, Cell Death, Hematological Disease, and Cellular Growth and Proliferation
CDK2	NM_001798	Neurological Disease
PTPRF	NM_002840	Neurological Disease
SERPINC1	NM_000488	Cell Death, Hematological Disease, and Cellular Growth and Proliferation
ALDH1A2	NM_170697	Cell Death and Cellular Growth and Proliferation
KRT18	L32537	Cell Death
IRF5	NM_002200	Cell Death and Hematological Disease
ANKS1B	NM_181670	Cell Death
RPS6KA5	NM_182398	Cell Death
CTGF	NM_001901	Cell Death, Hematological Disease, and Cellular Growth and Proliferation
STK11	NM_000455	Cell Death and Cellular Growth and Proliferation
ABCB1	NM_003742	Cell Death, Hematological Disease, and Cellular Growth and Proliferation
IL1RAP	NM_002182	Hematological Disease
HSD11B1	NM_181755	Hematological Disease and Cellular Growth and Proliferation
CD163	NM_004244	Cellular Growth and Proliferation
SRI	NM_003130	Organ Development, Cardiovascular System Development and Function, Tissue Development, and Skeletal and Muscular System Development and Function
RIMS1	NM_014989	Genetic Disorder
APOF	NM_001638	Lipid Transport
ME3	NM_001014811	Small Molecule Biochemistry and Energy Production
SENP7	NM_020654	Peptidase Activity
ABCB11	NM_003742	Inflammation, Small Molecule Biochemistry, and Molecular Transport
ETV7	NM_016135	Inflammation and Gene Expression
ADAMDEC1	NM_014479	Cancer and Genetic Disorder
SEPT3	NM_145733	Cell Cycle and Cytokinesis
ADAM11	NM_002390	Cell-Cell and Cell-Matrix Interactions
APOBEC3D	NM_152426	Inhibits Retroviruses
BZRAP1	NM_004758	Benzodiazepine Receptor Binding

Supplemental Table 2: CEBPD-responsive genes in U373MG cells (continued)

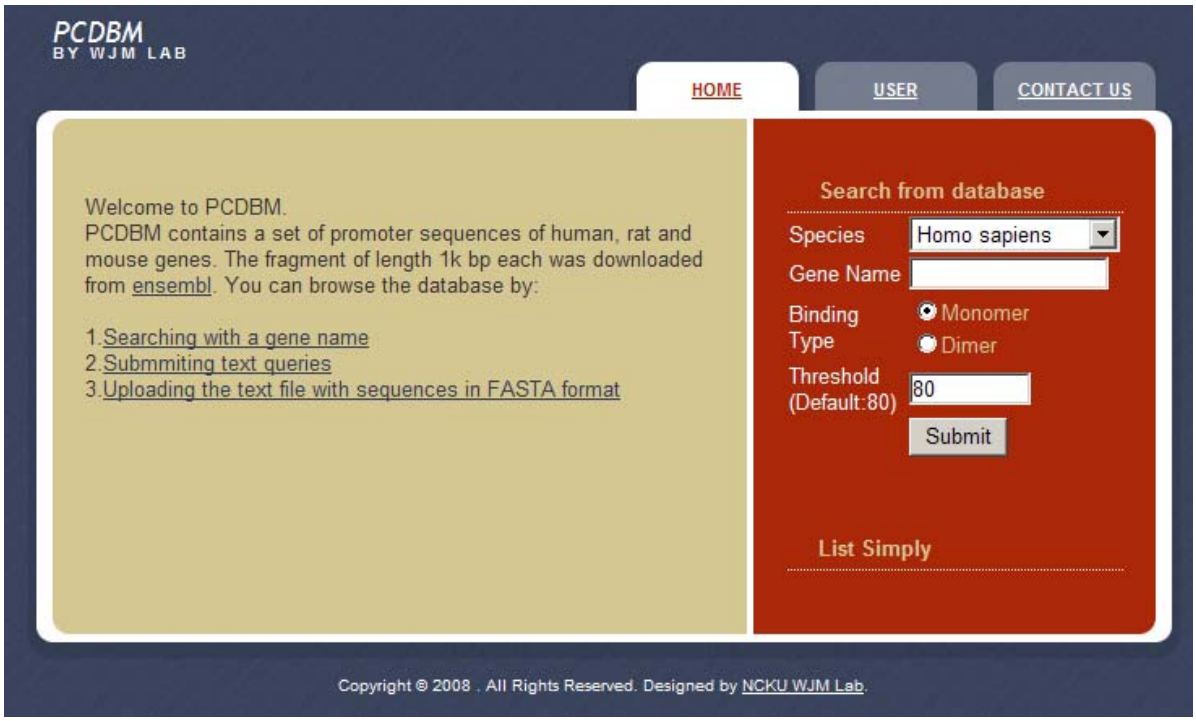
194 up-regulated genes (≥1.5)

(Ingenuity pathway analysis)
IPA analysis

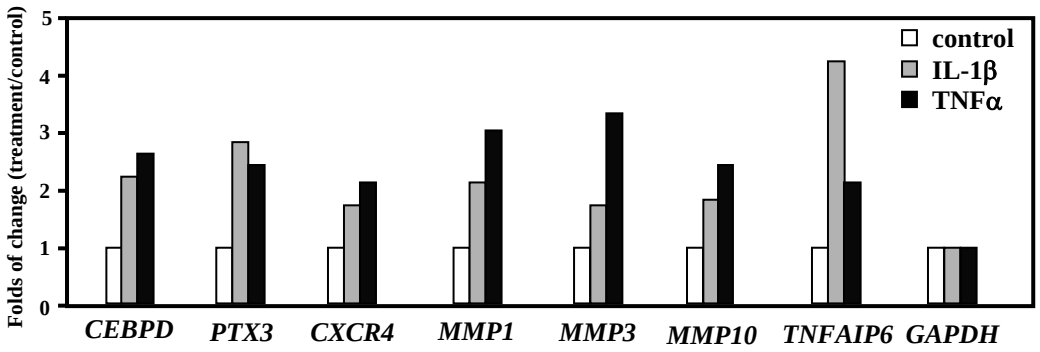


Supplemental Figure 1. Candidates respond to CEBPD induction. CEBPD up-regulated genes (194 genes, fold change ≧ 1.5) were subjected to Ingenuity pathway analysis (IPA). Gene function was suggested to involved in inflammatory response is shown in the left panel. Numbers under the genes represent the fold change upon CEBPD induction. Among these inflammation responsive factors, four proteins which could be secreted to extracellular space were identified (right panel).

http://web.ibbt.ncku.edu.tw:8080/wjmlab/PCDBM/



Supplemental Figure 2. Prediction of CEBPD-Binding Motifs (PCDBM, http://web.ibbt.ncku.edu.tw:8080/wjmlab/PCDBM/). This online program was designed for the prediction of CEBPD binding sites in promoters of interest. The 5'-flanking region (1 Kb upstream of The transcription start site) of genes from the three species can be retrieved by the gene name. Next, scores for predicted binding affinities for CEBPA, CEBPB, and CEBPD can be obtained from the output frame.



Supplemental Figure 3. THP-1 cells were treated with 5 ng/ml IL-1 β, 20 ng/ml TNF α for 3 h and RT-PCR of indicated genes was performed.