

Supplementary Information S6: List of genes differentially regulated by HSF1 in Cancer and in Huntington disease (see Fig. 5b)**Cancer***Chaperones*

HSPA1A (Heat Shock Protein Family A (Hsp70) Member 1a)
HSP90AB1 (Heat Shock Protein 90 Alpha Family Class B Member 1)
HSP90AA1 (Heat Shock Protein 90 Alpha Family Class A Member 1)
SERPINH1 (Serpins Family H Member 1)
CCT3 (Chaperonin Containing TCP1 subunit 3)

Apoptosis

BAX (BCL2 Associated X, Apoptosis Regulator)
MAPT (Microtubule Associated Protein Tau)
CFLAR (Caspase-Like Apoptosis Regulatory Protein)

Cell Metabolism

PGK1 (Phosphoglycerate Kinase 1)
SLC5A3 (Solute Carrier Family 5 Member 3)
FASN (Fatty Acid Synthase)

Cell cycle progression

CDC6 (Cell Division Cycle 6)
CKS1B (CDC28 Protein Kinase Regulatory Subunit 1B)
POLA2 (DNA Polymerase Alpha 2, Accessory Subunit)

mRNA processing and translation

RBM23 (RNA Binding Motif Protein 23)
EIF4A2 (Eukaryotic Translation Initiation Factor 4A2)
RPL22 (Ribosomal Protein L22)
LRIF1 (Ligand Dependent Nuclear Receptor Interacting Factor 1)

DNA repair, chromatin remodeling

MLH1 (MutL Homolog 1)
RAD51L1 (RAD51 Paralog B)
CBX3 (Heterochromatin Protein 1 Homolog Gamma)
MUM1 (Melanoma Associated Antigen (Mutated) 1)

Neurodegenerative diseases

Huntington Disease

Chaperones and autophagy

HSPB6 (Heat shock protein beta-6)

HSPB1 (Heat shock protein beta-1)

ATG16L2 (Autophagy Related 16-2)

ATG3 (Ubiquitin-like-conjugating enzyme ATG3)

Cell proliferation

FLT4 (Vascular endothelial growth factor receptor 3)

IGF1 (Insulin Like Growth Factor 1)

MEP1A (Meprin A Subunit Alpha)

CD276 (CD276 antigen)

*Cell metabolism*PGC1 α (Peroxisome proliferator-activated receptor gamma coactivator 1-alpha)*Endocytosis and vesicle trafficking*

STON2 (Stonin-2)

LRP1 Low-density lipoprotein receptor-related protein 1)

GTPase signaling

RAB11A (Ras-related protein Rab-11A)

RAB11FIP3 (Rab11 family-interacting protein 3)

RAB6B (Ras-related protein Rab-6B)

RIN1 (Ras and Rab interactor 1)

KALRN (Kalirin)