#### SUPPLEMENTAL FIGURE LEGENDS

**supplemental Fig. 1.** Gene plots of top ranking pathways involved in the immunomodulatory network linked to FTH1.

supplemental Fig. 2. Gene network analysis reveals the over-represented networks from all the genes which correlate with FTH1 expression. (A) Significantly over-represented gene networks associated with FTH1 expression. Two orange highlighted pathways are related to immunoregulation; (B) "Antigen presentation, infectious disease" interaction network reveals that most of immunoregulatory genes in this network positively correlate with FTH1 expression (red nodes). Green nodes are those genes which negatively correlate with FTH1 expression, while empty nodes are those which were not submitted for analysis.

**supplemental Fig. 3.** Protein network analysis reveals the over-represented networks from all the proteins which correlate with FTH1 expression.

#### LIST OF SUPPLEMENTAL TABLES

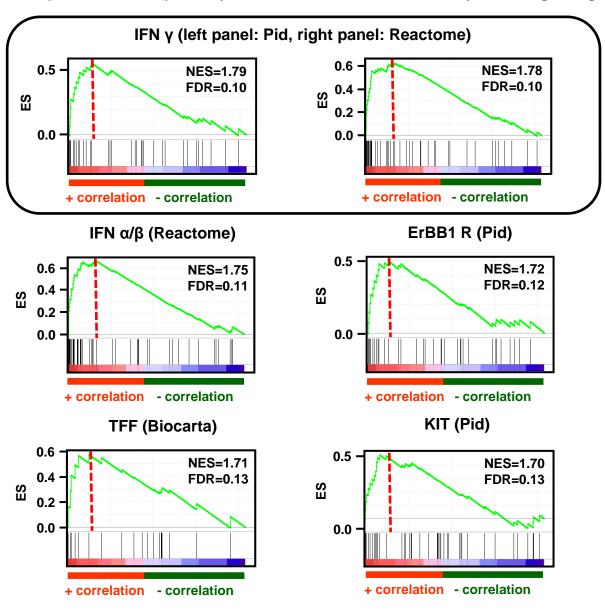
supplemental Table S1. GSEA database of TNBC subtype related genes

**supplemental Table S2.** Enriched TNBC subtypes between good and poor prognosis based on gene expression of 63 TNBC samples

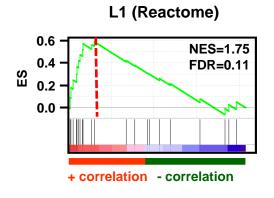
**supplemental Table S3.** Co-enrichment between prognosis-associated pathways of TNBC and pathways related to the genes corresponding to 11-protein signature

## supplemental Fig. 1

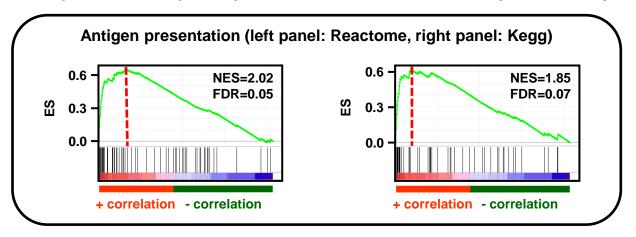
1. Top FTH1-related pathways involved in the activation of cytokine signaling



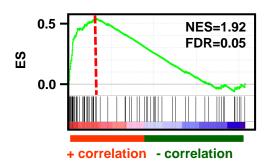
## 1-2. Top FTH1-related pathway links cytokine signaling and adaptive immunity



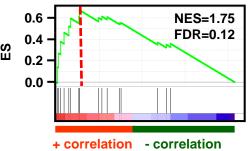
## 2. Top FTH1-related pathways involved in the activation of adaptive immunity



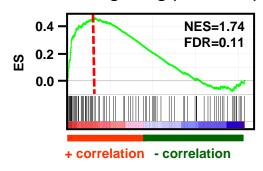
## **BCR downstream (Reactome)**



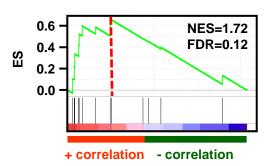
# NEF down (Reactome)



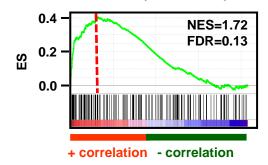
**BCR** signaling (Reactome)



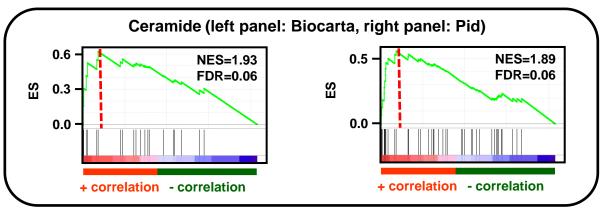
NF<sub>K</sub>B (Pid)

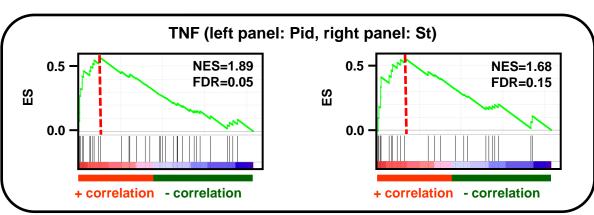


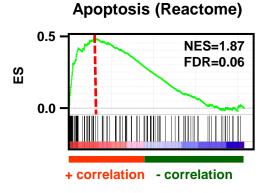
#### MHC I (Reactome)

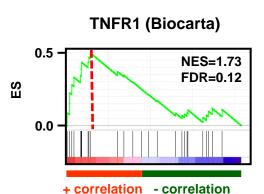


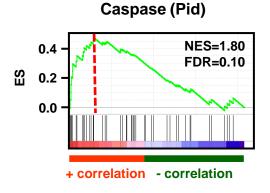
## 3. Top FTH1-related pathways involved in cell death process

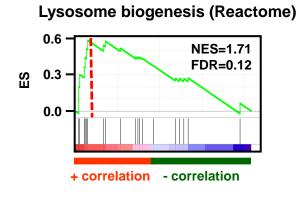






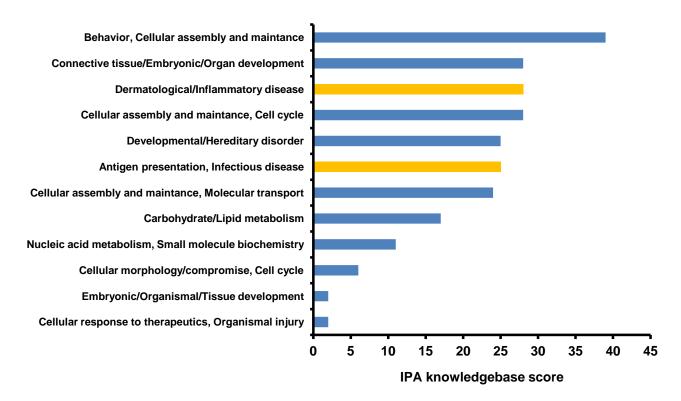




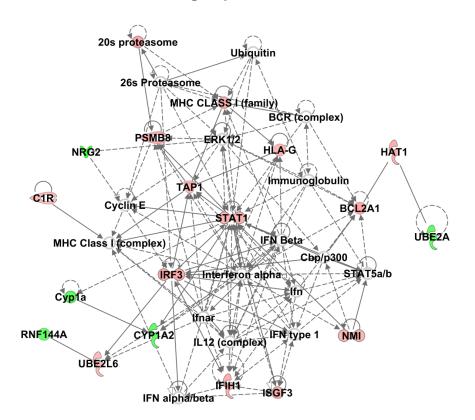


## supplemental Fig. 2

## A FTH1 associated gene networks (IPA knowledgebase)



## B Interaction network: Antigen presentation, Infectious disease



## supplemental Fig. 3

## FTH1 associated protein networks (STRING 9.1)

