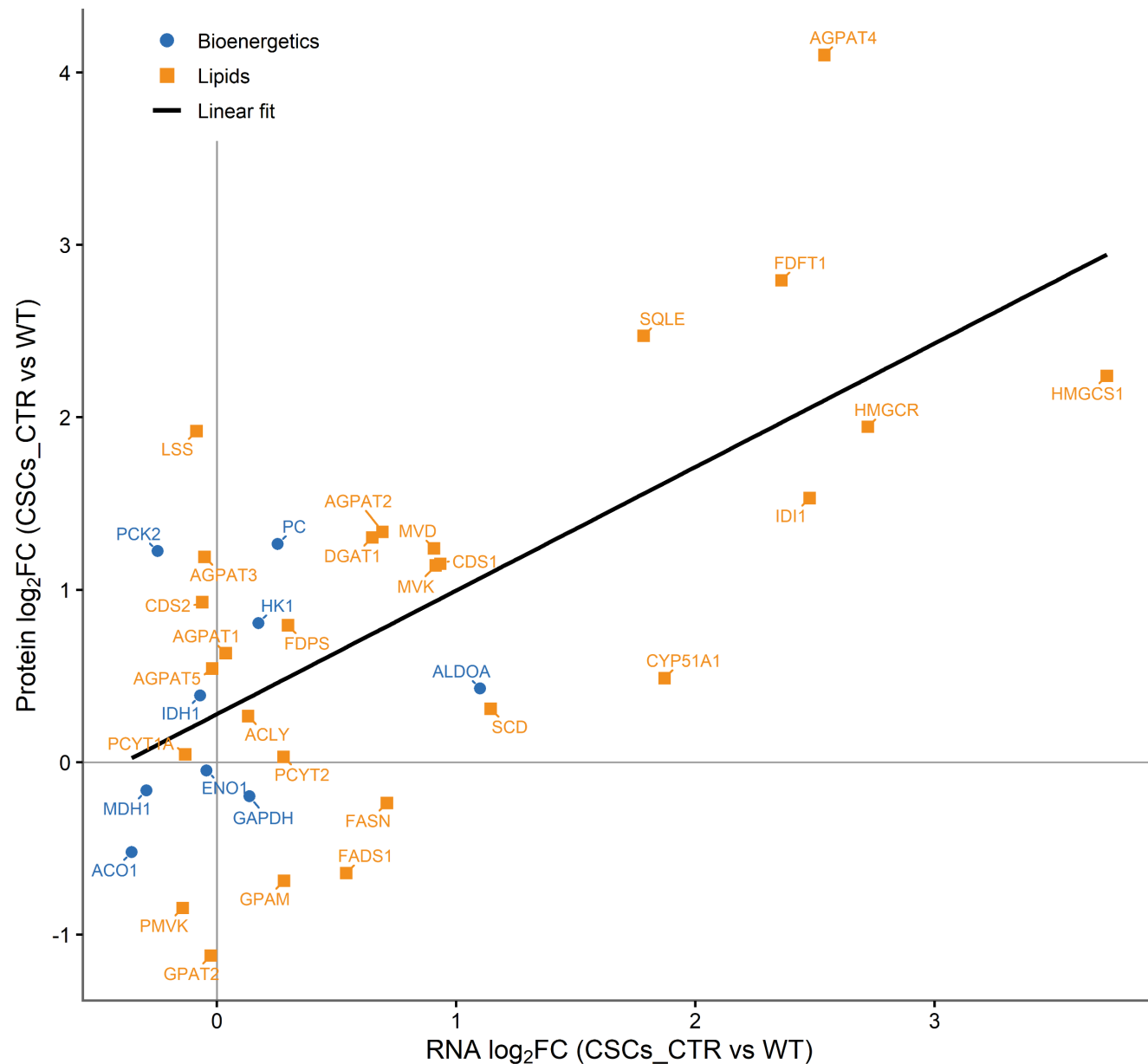


Supplementary Data S5. Correlation between transcriptomic and proteomic changes in WT HCT116 cells vs. HCT116-derived CSCs and in HCT116-derived CSCs after HMPSNE treatment. Scatter plots show the relationship between RNA expression changes (RNA log₂ fold change) and protein abundance changes (protein log₂ fold change) derived from integrated transcriptomic and proteomic datasets. Top panels: Correlation analysis restricted to metabolic enzymes. The left panel compares CSCs with WT cells, showing a moderate correlation between RNA and protein changes (Pearson r = 0.66). The right panel compares HMPSNE-treated CSCs with untreated CSCs (CSC+HMPSNE vs CSC), showing a weaker correlation (Pearson r = 0.35). Enzymes involved in bioenergetic pathways are indicated in blue and lipid metabolic enzymes in orange. A linear regression line is shown in black. Bottom panels: Global RNA–protein correlations for all detected genes/proteins. The left panel shows the comparison between CSCs and WT cells (Pearson r = 0.53), whereas the right panel shows CSCs treated with HMPSNE compared with untreated CSCs (Pearson r = 0.26). Each point represents a gene/protein pair detected in both datasets. Linear regression lines illustrate the overall correlation trends. These analyses demonstrate that transcriptomic and proteomic changes are moderately correlated in CSCs relative to WT cells, whereas HMPSNE treatment induces broader proteomic remodeling with weaker correspondence between RNA and protein abundance changes.

WT vs CSCs-CTR vs CSCs-HMPSNE

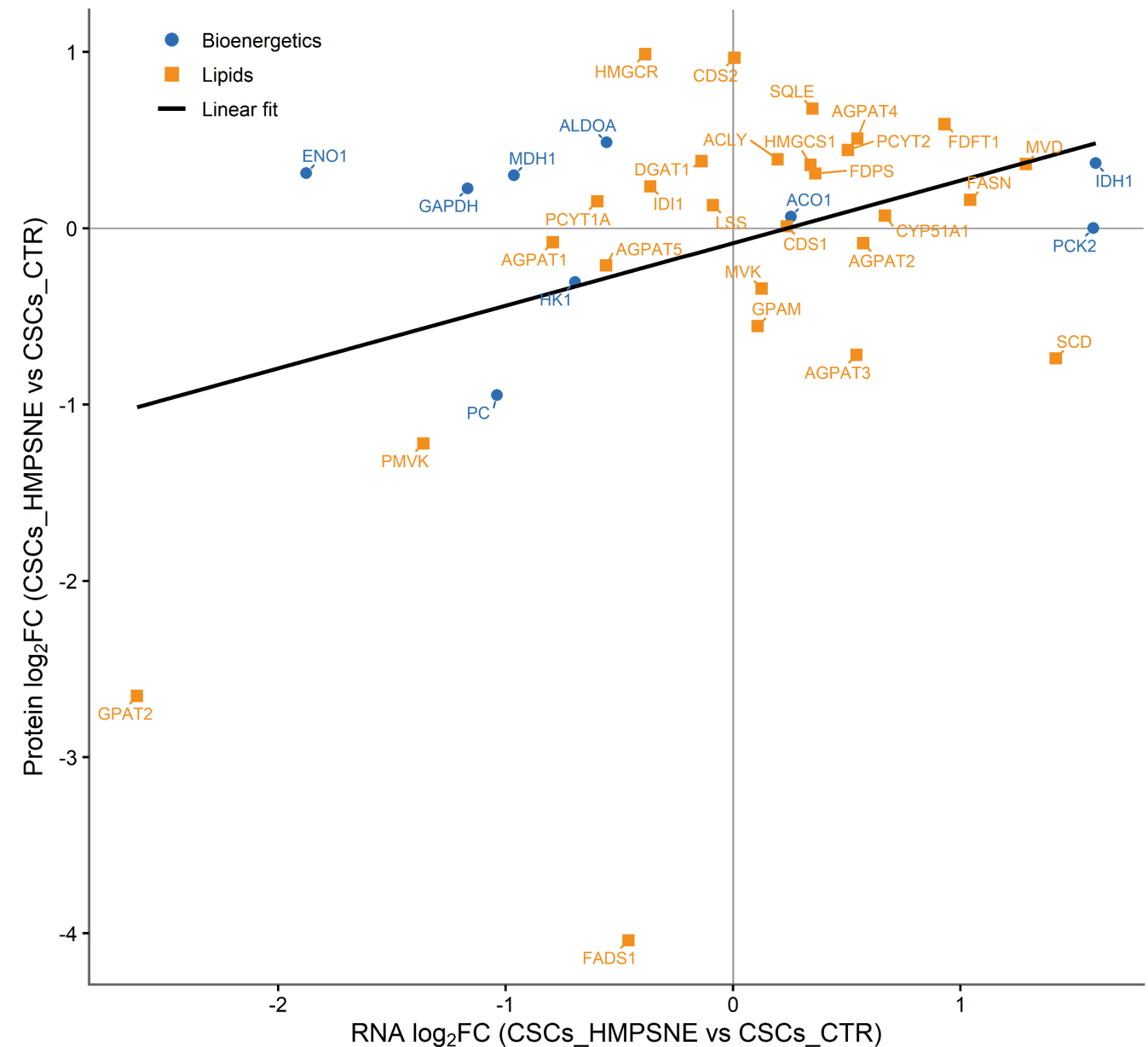
RNA-protein correlation: metabolic enzymes (CSCs_CTR vs WT)

Pearson $r = 0.66$ | $n = 36$ | $P = < 0.001$



RNA-protein correlation: metabolic enzymes (CSCs_HMPSNE vs CSCs_CTR)

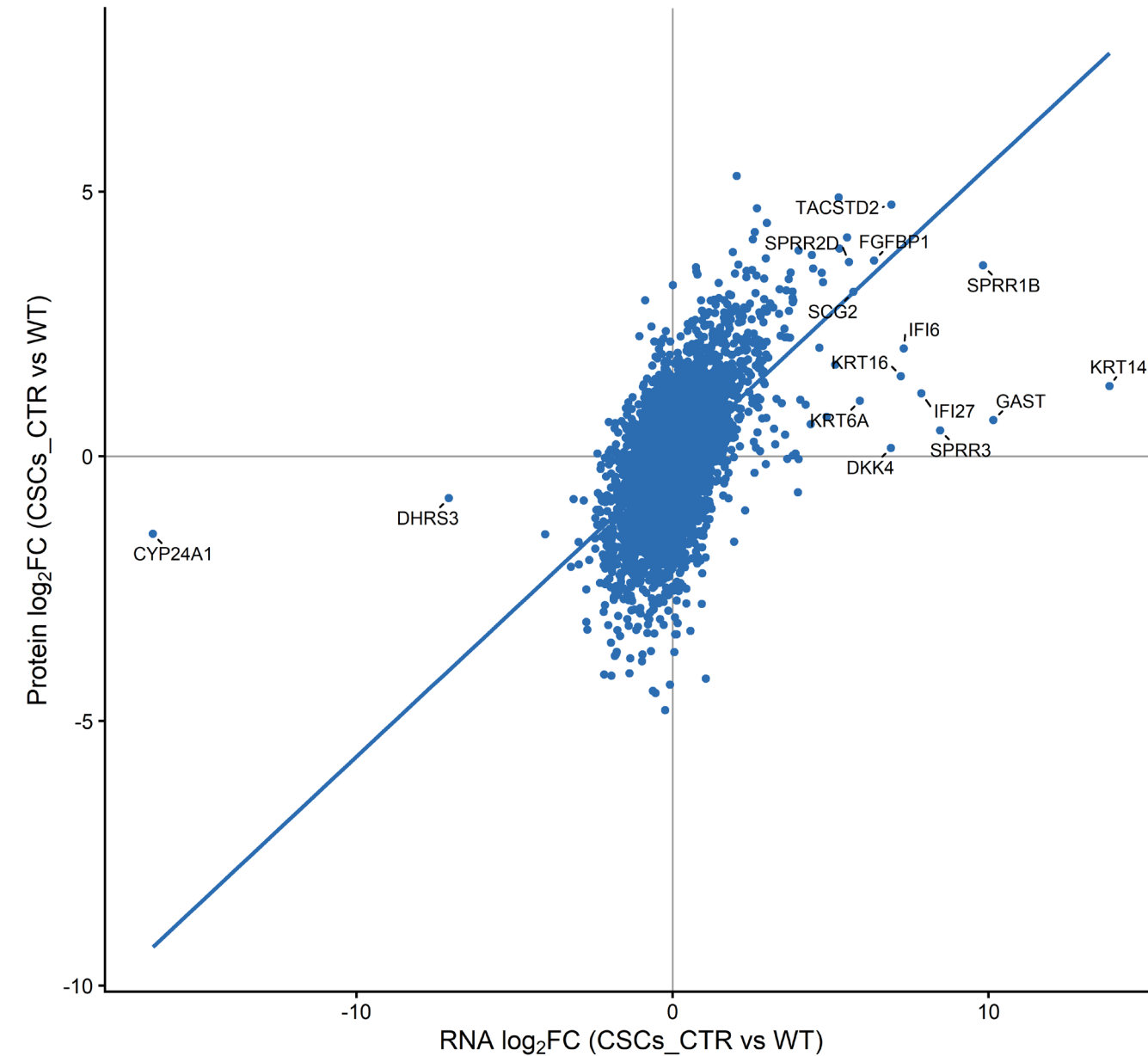
Pearson $r = 0.35$ | $n = 36$ | $P = 0.035$



WT vs CSCs-CTR vs CSCs-HMPSNE

RNA-protein correlation: CSCs_CTR vs WT

Pearson $r = 0.53$ | $n = 7077$ | $P = < 0.001$



RNA-protein correlation: CSCs_HMPSNE vs CSCs_CTR

Pearson $r = 0.26$ | $n = 7077$ | $P = < 0.001$

