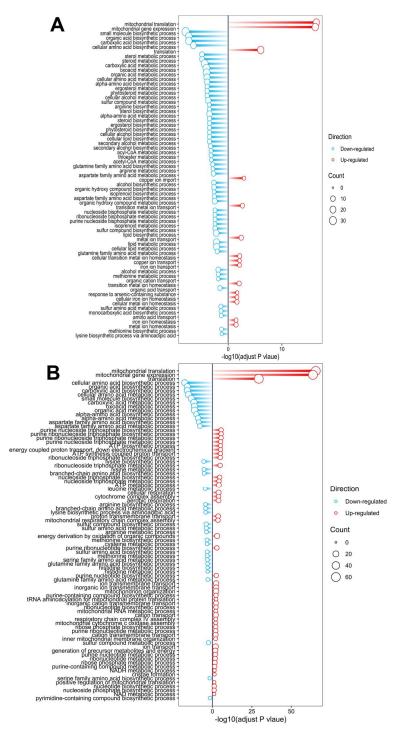
## **Supplementary Figures**



**Figure S1: GO term enrichment analyses:** The GO term (Molecular Function) analyses show significantly enriched terms for (**A**) positively responding versus non-responding and (**B**) positively responding versus negatively responding strains.

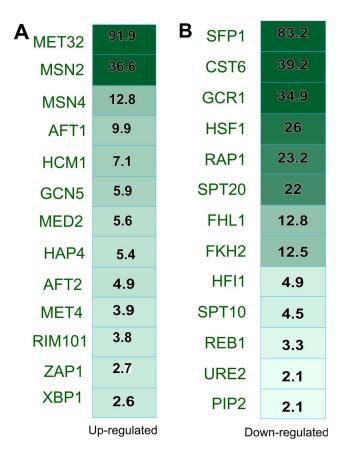


Figure S2. Transcription factor enrichment analyses for non-responding strains analyzed under CR condition. Significantly enriched TFs for (A) up- and (B) down-regulated DEGs obtained under CR conditions for non-responding strains. The color index and the number show the significance of the enrichment score ( $-\log_{10}$ , adjusted P-value).

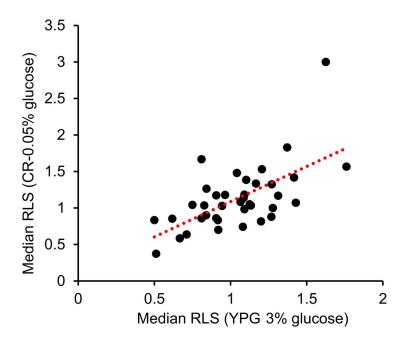


Figure S3. A positive correlation of median RLS phenotype between YPG and CR medium was observed. A significant correlation was observed between median RLS in YPG and median RLS in CR, wherein glycerol-induced CR-induced respiration approximately equally extends the RLS of those strains we tested ( $R^2 = 0.62$ , Padj value = 2.29x10-4).