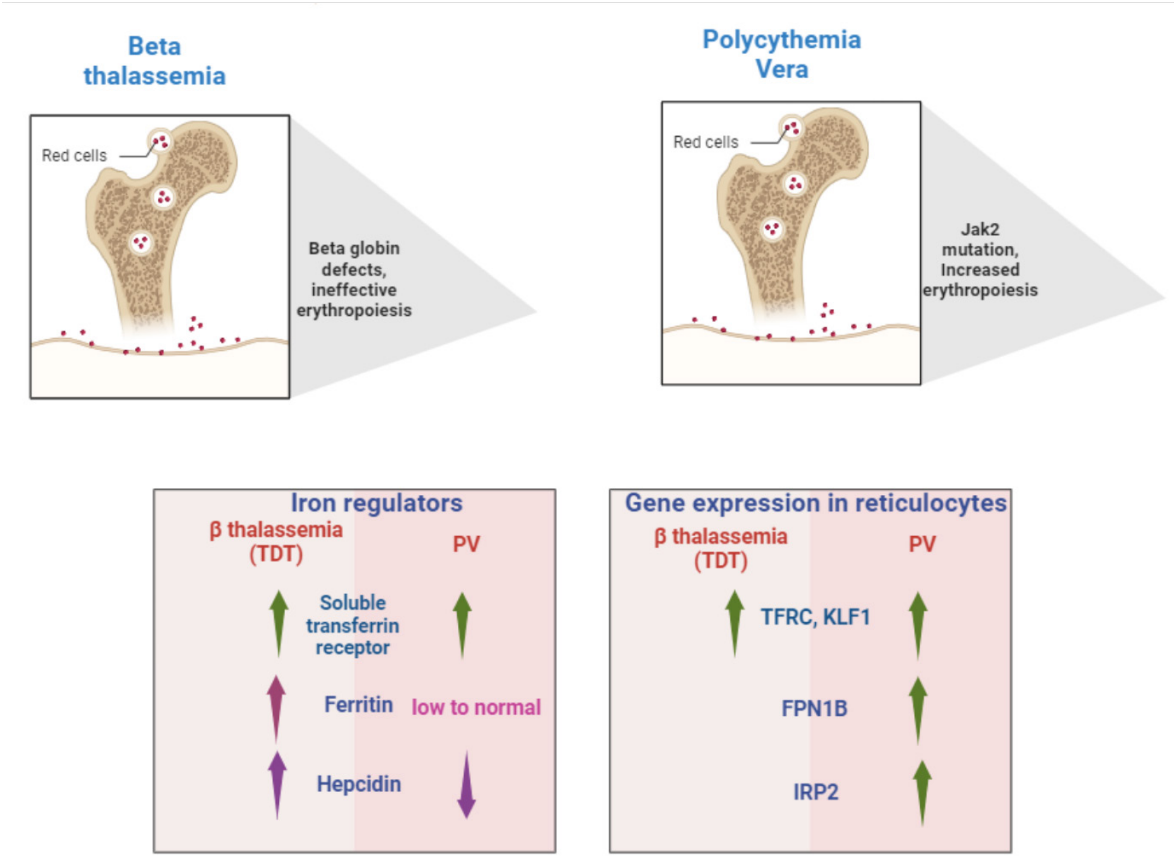

Supplementary Fig. 3. Iron and erythropoiesis regulation in β-thalassemia and Polycythaemia Vera. β thalassemia is characterized by ineffective erythropoiesis due to the reduced or absent synthesis of the beta-globin synthesis, while in polycythaemia vera, the *JAK2* mutation leads to the overproduction of RBCs. In both conditions, soluble transferrin receptor levels are increased. Ferritin levels are higher in β thalassemia (TDT) due to transfusions and lower in PV due to increased erythropoiesis. In TDT, hepcidin levels are relatively lower than ferritin levels, whereas in PV, hepcidin levels decrease due to increased erythropoiesis. Notably, KLF1 mRNA expression increased in reticulocytes for both conditions. TFRC mRNA expression decreases in β thalassemia but increases in PV. Additionally, *FPN1B* and *IRP2* mRNA expression were increased in PV, impacting iron regulation. The figure was created with *BioRender.com* solely for the purpose of this study.