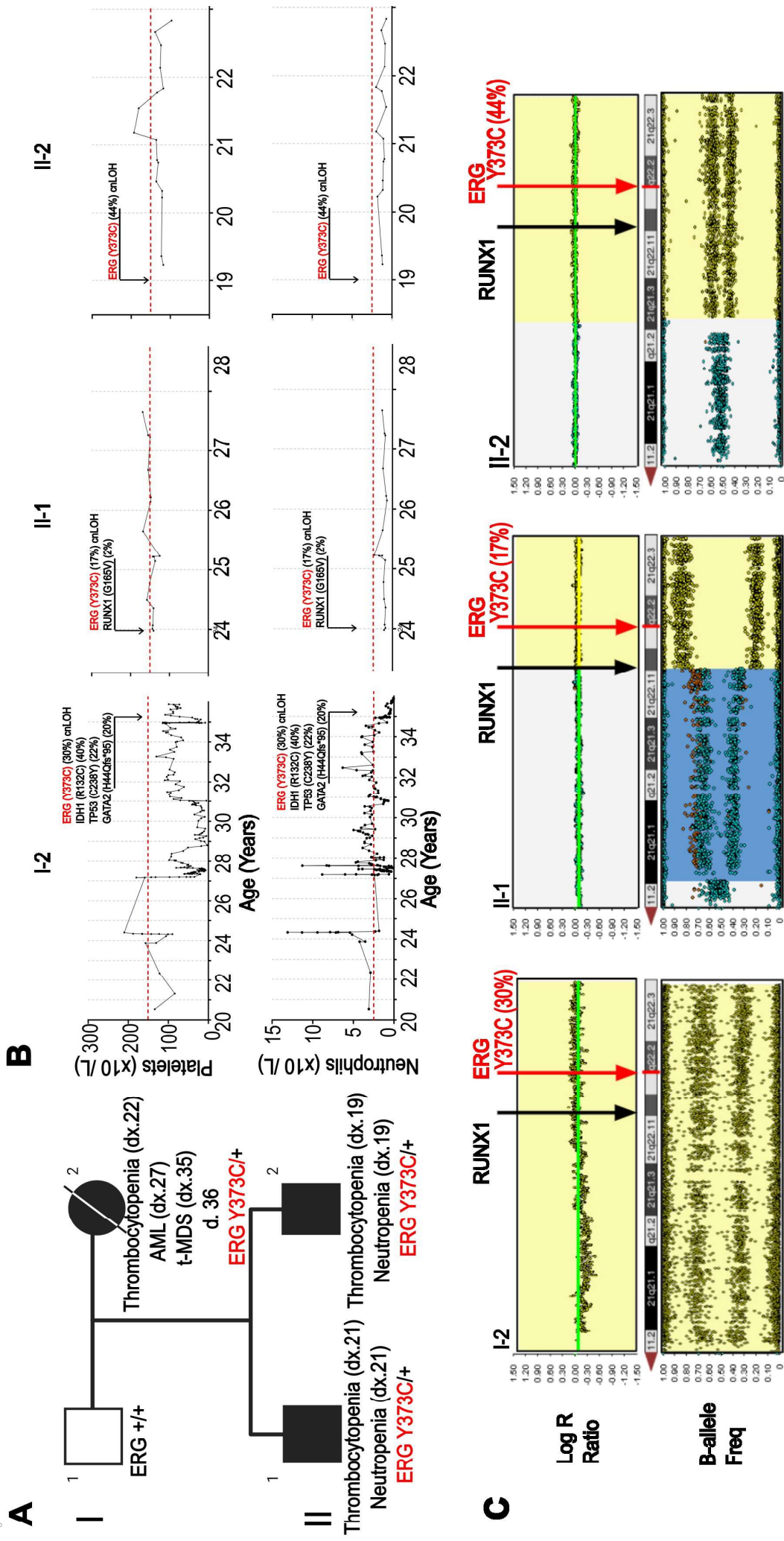
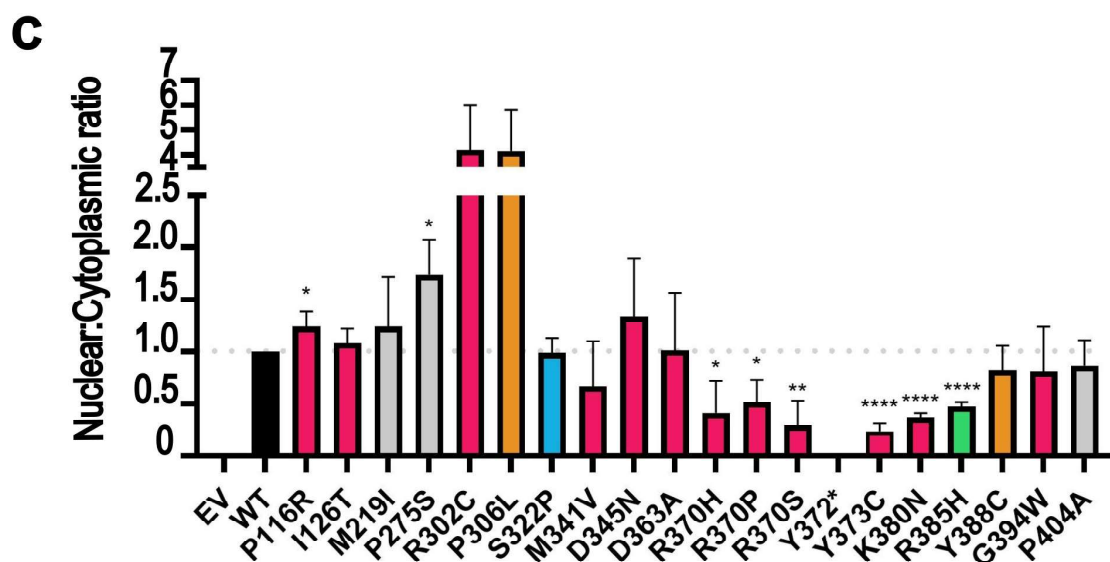
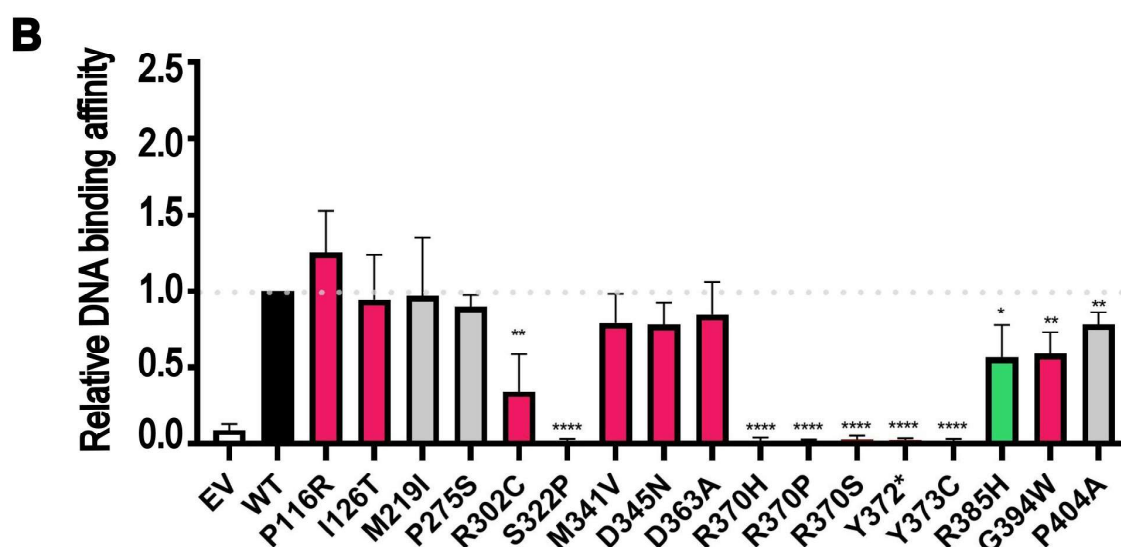
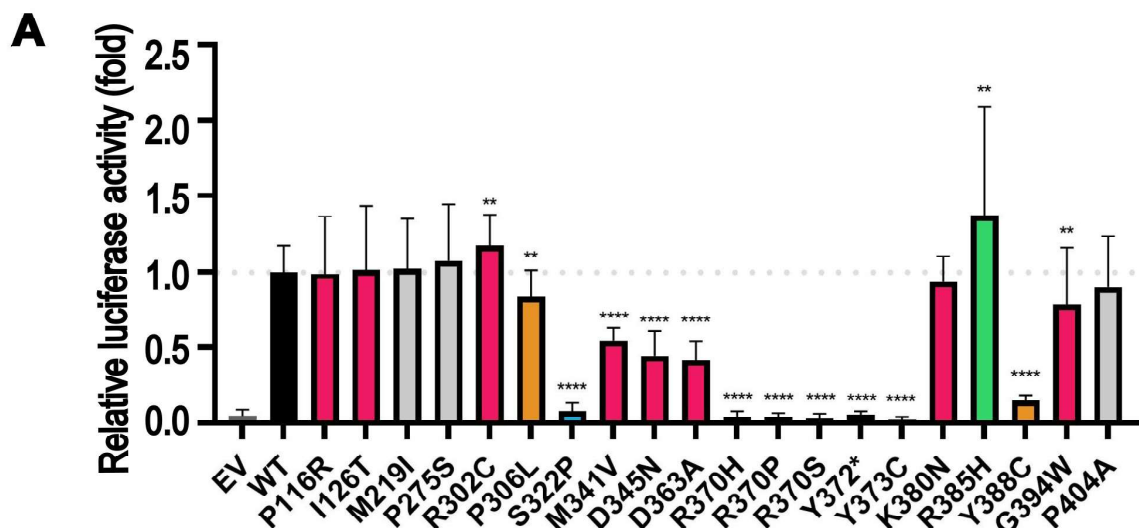
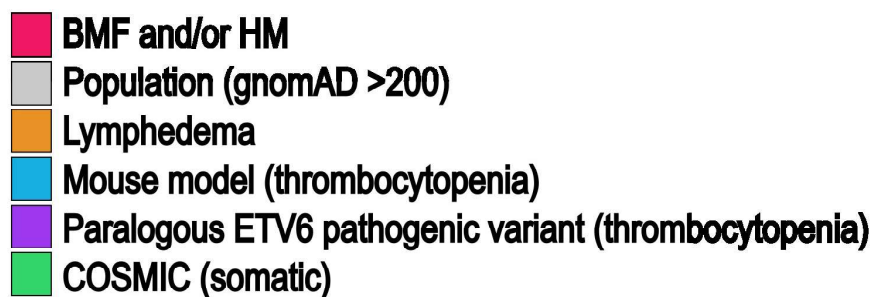


Figure 1





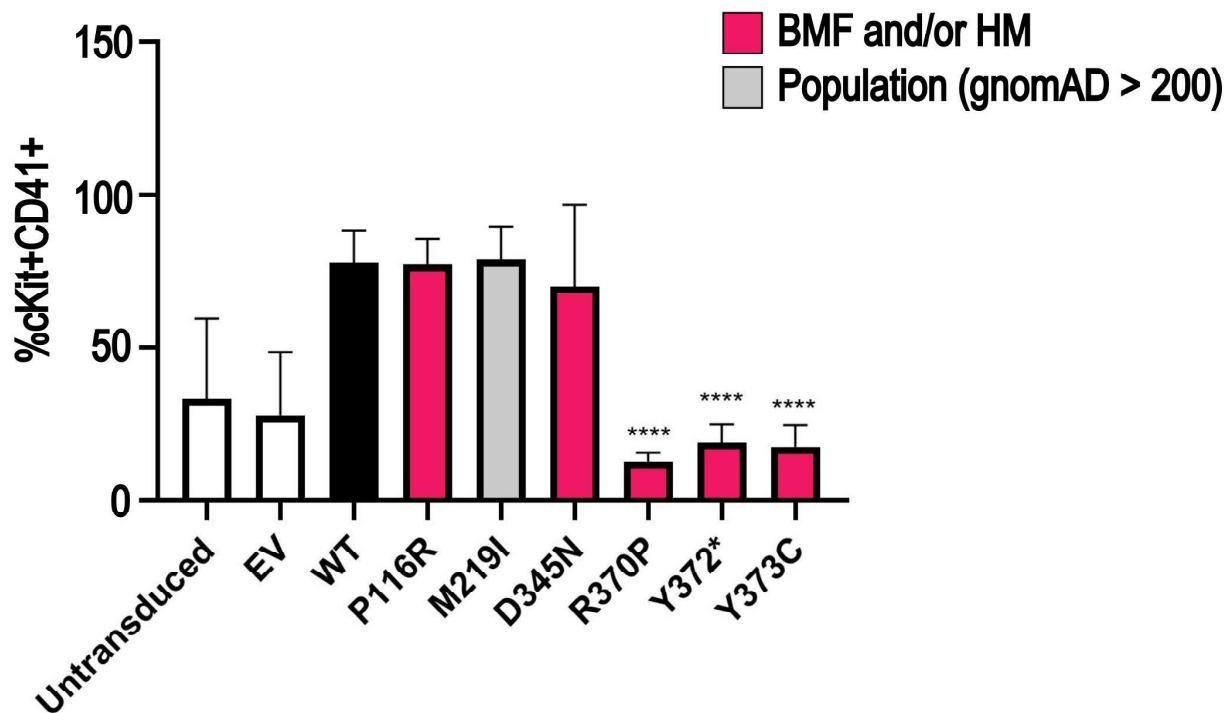
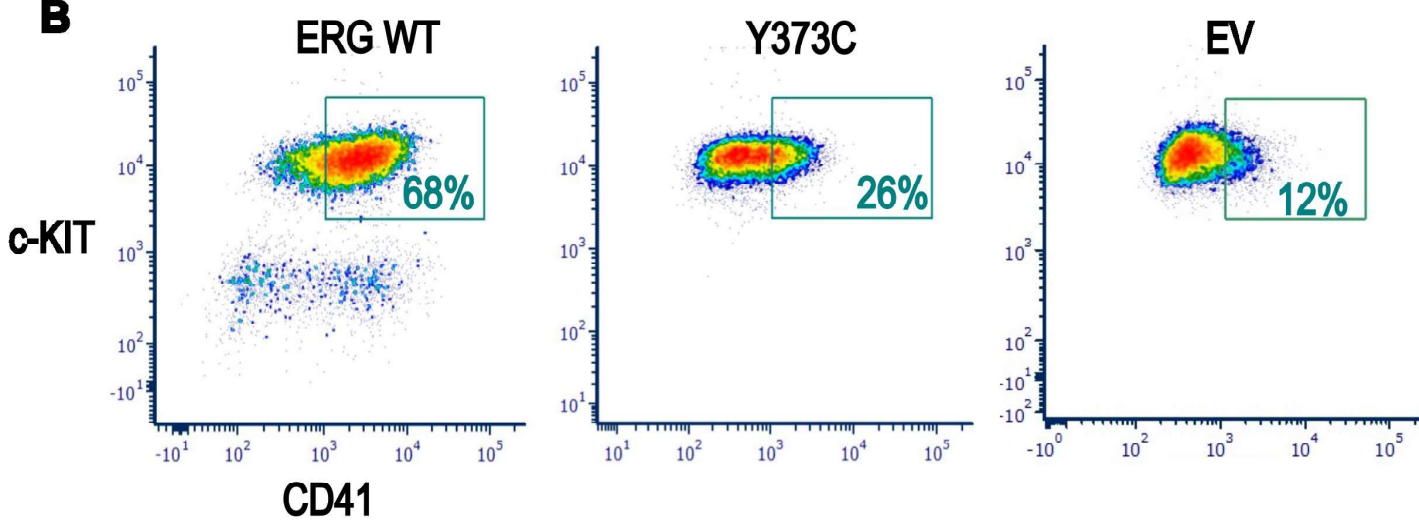
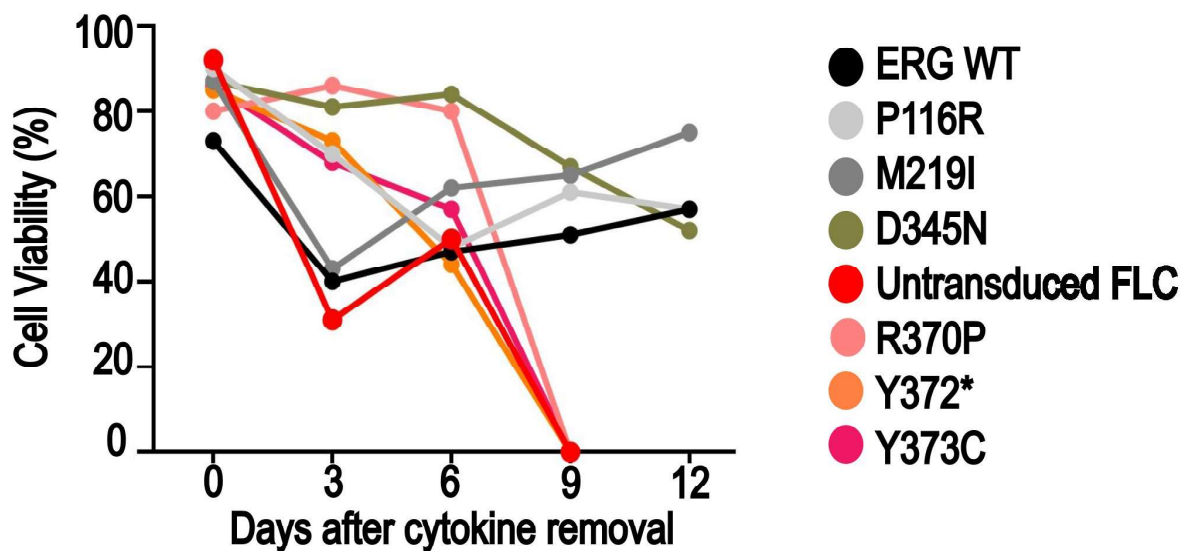
A**B****C**

Figure 4

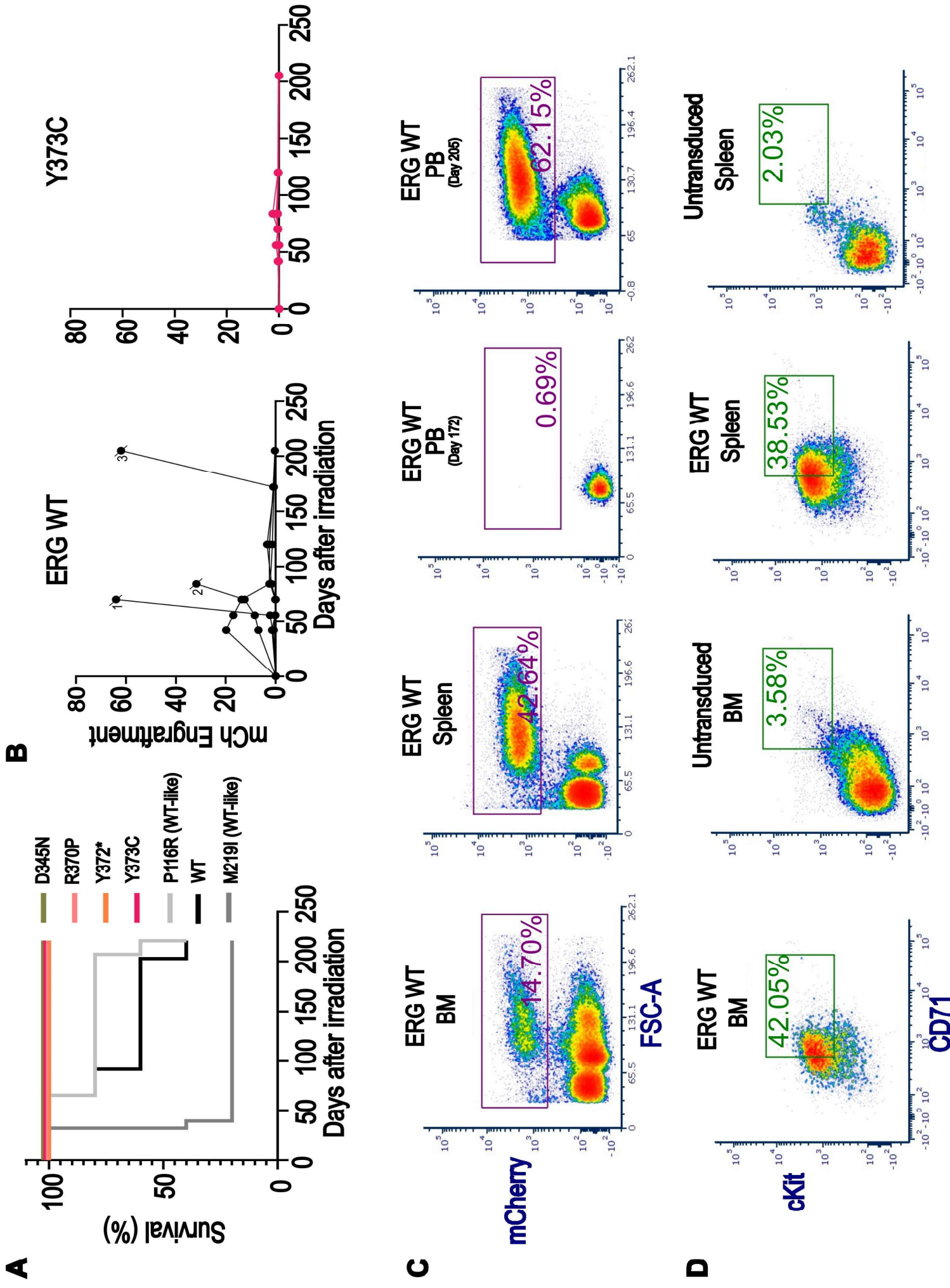


Figure 5

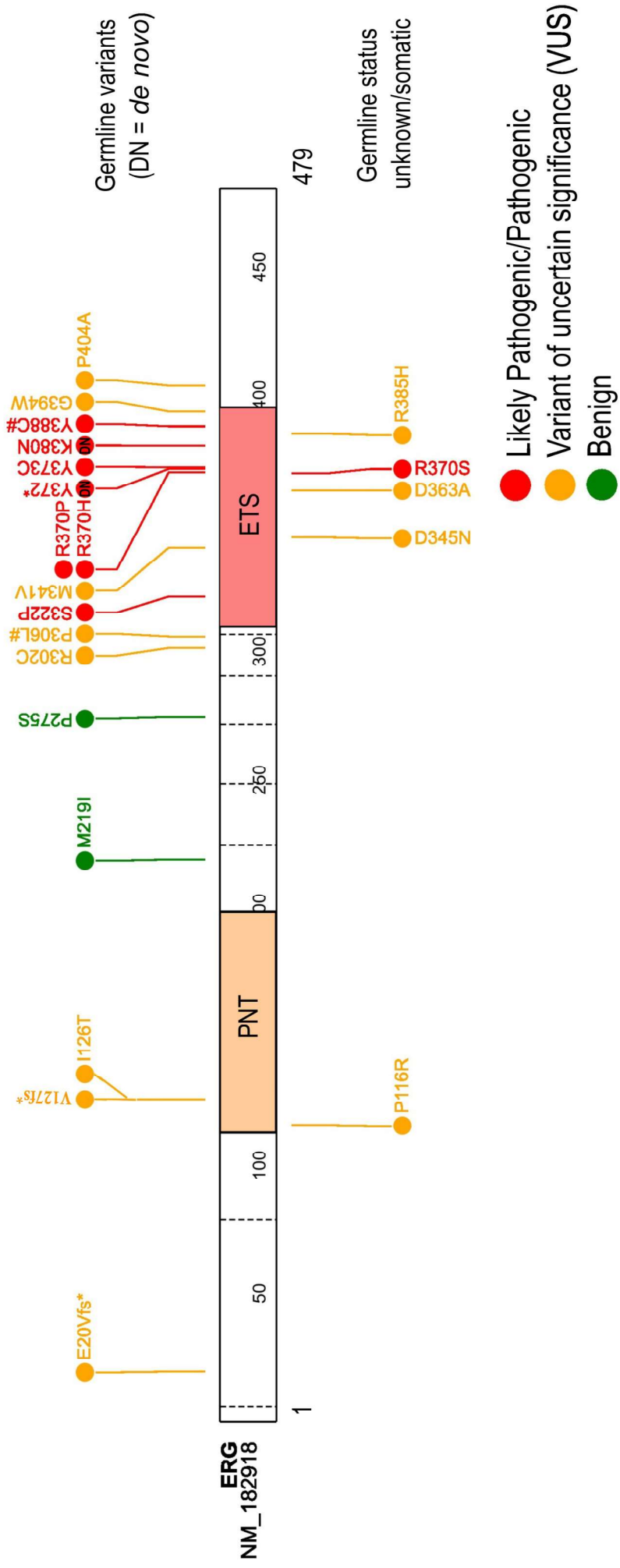


Fig. **ACMG Classifications**
Pathogenic/Likely Pathogenic
Variant of uncertain significance
Benign

● Complete loss-of-function
 ● Hypomorphic activity

● In vivo leukemogenesis model
 ● Cytokine independence
 ● Megakaryocytic differentiation
 ● Nuclear localization
 ● DNA binding
 ● Transactivation
 ● gnomAD >0
 ● gnomAD >200
 ● Confirmed Germline

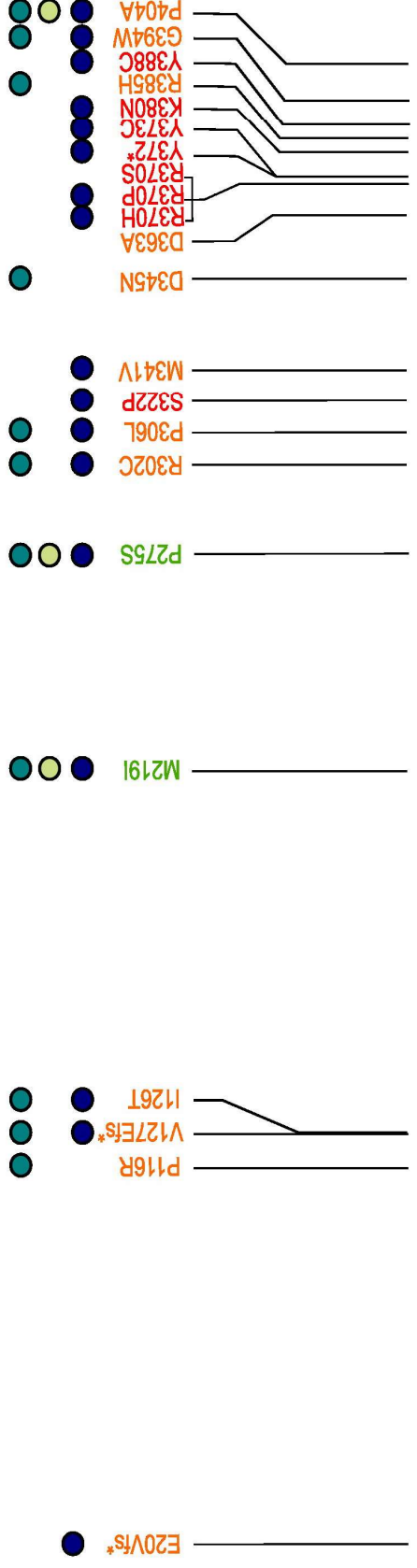
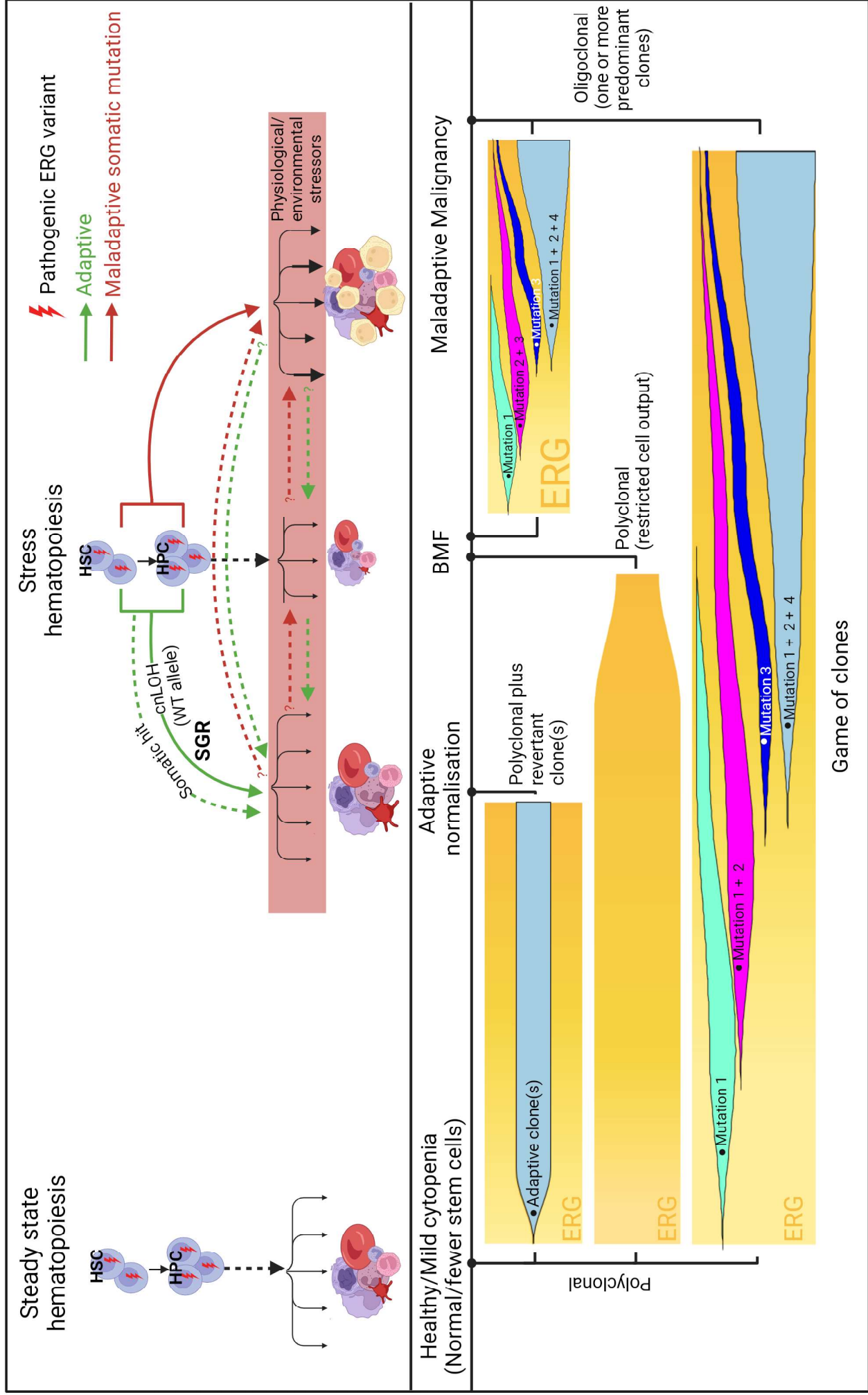


Figure 7



Germline ERG variants in bone marrow failure and hematological malignancy

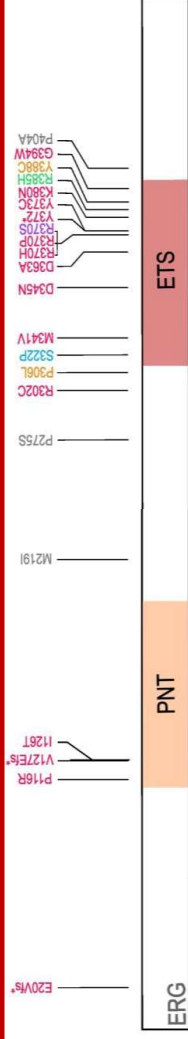
BMF and/or HM
Population (gnomAD >200)

Lymphedema

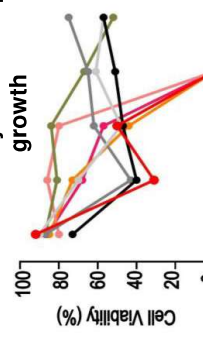
Mouse model (thrombocytopenia)

Paralogous ETV6 pathogenic variant (thrombocytopenia)

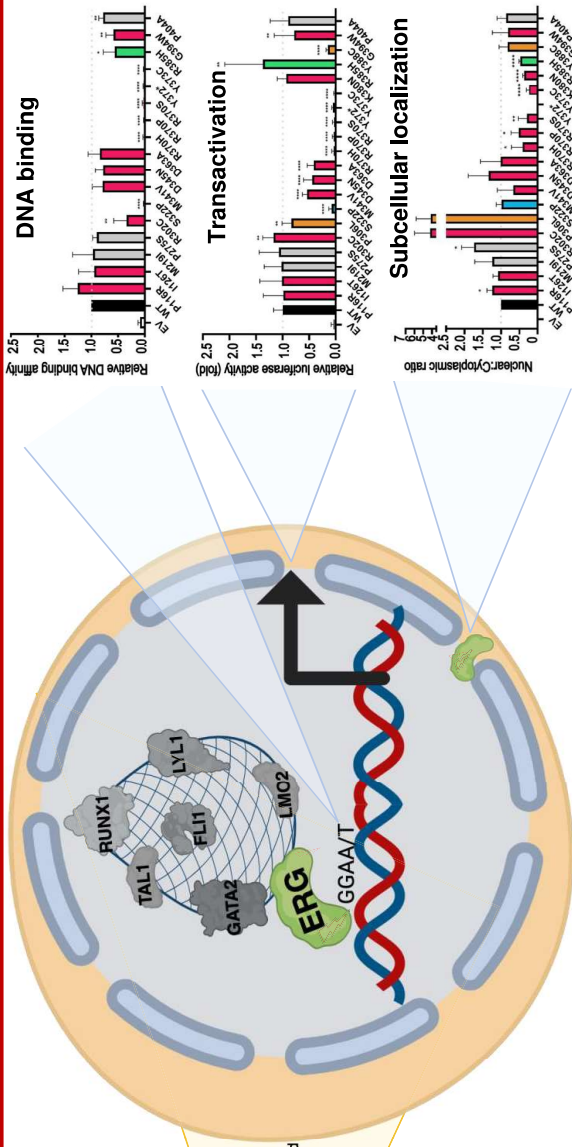
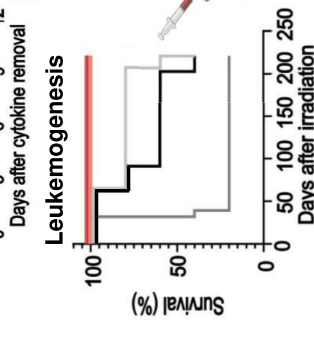
COSMIC (somatic)



Fetal liver cell cytokine independent growth



Leukemogenesis



Conclusion: Germline ERG loss-of-function variants predispose to cytopenias and hematological malignancies.
Zerella et al. DOI