## **Supplementary Materials**

Supplementary Figure S1. Synergistic suppression of *met8-1*, *trp5-48* and *lys2-101* nonsense alleles by CDX compounds and paromomycin.

Supplementary Figure S2. p53 PTC readthrough in HDQ-P1 cells.

Supplementary Figure S3. PTC readthrough in HDQ-P1 cells produces transcriptionally active p53.

Supplementary Figure S4. PTC readthrough at p53 R213X (TGA-C) in a cell-free translation extract.

Supplementary Figure S5. Effect of CDX5-1 and G418 on cell viability.

Supplementary Table S1. Nonsense mutations in B0133-3B and IS110-18A strains identified by whole genome sequencing.

Supplementary Table S2. Structure and p53 R213X readthrough activity of CDX5 analogs.

Supplementary Table S3. Primers used in this study.