Description of Additional Supplementary Files

Supplementary Data 1: A reference sheet providing overview information of each set of Supplementary Data

Supplementary Data 2: Combined metadata from included pediatric pancancer studies.

Supplementary Data 3: A list of category 1 individual genes and blod category 2 group pediatric cancer predisposition genes with added data as indicated by variable name. Data from source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 4: A list defining genes as linked to pediatric- or adult-onset cancer predisposition syndromes. Based on information as provided in Supplementary Data 3 as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 5: Study data Zhang et al. (2015); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 6: Study data Parsons et al. (2016); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 7: Study data Mody et al. (2016); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 8: Study data Oberg et al. (2016); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 9: Study data Gröbner et al. (2018); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 10: Study data Wong et al. (2020); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 11: Study data Byrjalsen et al. (2020); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 12: Study data Fiala et al. (2021); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 13: Study data Newmann et al. (2021); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 14: Study data Stedingk et al. (2021); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 15: Study data Wagener et al. (2021); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 16: Study gene panel Zhang et al. (2015); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 17: Study gene panel Parsons et al. (2016); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 18: Study gene panel Mody et al. (2016); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 19: Study gene panel Oberg et al. (2016); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 20: Study gene panel Gröbner et al. (2018); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 21: Study gene panel Wong et al. (2020); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 22: Study gene panel Byrjalsen et al. (2020); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 23: Study gene panel Fiala et al. (2021); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 24: Study gene panel Newmann et al. (2021); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 25: Study gene panel Stedingk et al. (2021); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 26: Study gene panel Wagener et al. (2021); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 27: Predicted loss-of-function variants in *ELP1* as reported by gnomad v2.1.1; source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 28: Predicted loss-of-function variants in *ELP1* as reported by Waszak et al. (2020); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 29: Predicted loss-of-function variants in *GPR161* as reported by gnomad v2.1.1; source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 30: Predicted loss-of-function variants in *GPR161* as reported by Begemann et al. (2020); source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 31: Variant information from National Center for Biotechnology Information. ClinVar. Search terms: *SAMD9* [gene] "single nucleotide" & "Pathogenic"; source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 32: Variant information from National Center for Biotechnology Information. ClinVar. Search terms: *SAMD9L* [gene] "single nucleotide" & "Pathogenic"; source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 33: Variant information from National Center for Biotechnology Information. ClinVar. Search terms: HRAS [gene] "single nucleotide" & "Pathogenic"; source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 34: Predicted loss-of-function variants in *MSH2* as reported by gnomad v2.1.1; source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 35: Predicted loss-of-function variants in *DIS3L2* as reported by gnomad v2.1.1; source as linked/referenced in Supplementary Data 1 and in the main manuscript.

Supplementary Data 36: Metadata on GWAS findings related to cancer susceptibility in humans; source as linked/referenced in Supplementary Data 1 and in the main manuscript.