

## Description of Additional Supplementary Files

### **Supplementary Datasets**

#### **Supplementary Data 1-**

File Name: Supplementary Data 1.xlsx

Description: Patient clinical and demographic information

#### **Supplementary Data 2-**

File Name: Supplementary Data 2.xlsx

Description: Validation of somatic mutations using deep sequencing

#### **Supplementary Data 3-**

File Name: Supplementary Data 3.xlsx

Description: Mutation rates of driver genes in our PDX cohort and several other published cohorts.

#### **Supplementary Data 4-**

File Name: Supplementary Data 4.xlsx

Description: MutSigCV output on significantly mutated genes

#### **Supplementary Data 5-**

File Name: Supplementary Data 5.xlsx

Description: List of cancer genes used in PT/PDX genetic comparisons

#### **Supplementary Data 6-**

File Name: Supplementary Data 6.xlsx

Description: Telomere length estimates from whole genome and exome sequencing data

#### **Supplementary Data 7-**

File Name: Supplementary Data 7.xlsx

Description: Summary of PT/PDX mutation similarity and clonal neoantigens

#### **Supplementary Data 8-**

File Name: Supplementary Data 8.xlsx

Description: Top 20 pathways identified by GSEA between group 1 and group 2 PTs

#### **Supplementary Data 9-**

File Name: Supplementary Data 9.xlsx

Description: Detailed chromosomal instability scores of PTs and PDXs

**Supplementary Data 10-**

File Name: Supplementary Data 10.xlsx

Description: Summary of gene fusions identified in our cohort