

## **Description of Additional Supplementary Files**

File Name : Supplementary Data 1

Description : cfDNA data information

File Name : Supplementary Data 2

Description : Summary of patients and samples analyzed

File Name : Supplementary Data 3

Description : PCAWG WGS sample information

File Name : Supplementary Data 4

Description : High and low LMD regions per cancer type

File Name : Supplementary Data 5

Description : ATAC-seq sample information

File Name : Supplementary Data 6

Description : NDR peak count per sample

File Name : Supplementary Data 7

Description : Tissue-specific NDRs

File Name : Supplementary Data 8

Description : Results of cancer detection

File Name : Supplementary Data 9

Description : Results of tissue-of-origin localization

File Name : Supplementary Data 10

Description : Hyperparameter space