

## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Sample overview

File Name: Supplementary Data 2

Description: Principal Components based on RNA-seq data

File Name: Supplementary Data 3

Description: Principal Components based on methylation data

File Name: Supplementary Data 4

Description: Somatic mutations

File Name: Supplementary Data 5

Description: Hallmarks of cancer gene set enrichment analysis

File Name: Supplementary Data 6

Description: Gene set enrichment analysis for MOFA latent factors

File Name: Supplementary Data 7

Description: Chimeric transcripts

File Name: Supplementary Data 8

Description: Chromosomal rearrangements

File Name: Supplementary Data 9

Description: DLL3 and CD1A Immunohistochemistry

File Name: Supplementary Data 10

Description: Differentially expressed genes between MOFA LNET clusters

File Name: Supplementary Data 11

Description: Differentially methylated positions between MOFA LNET clusters.

File Name: Supplementary Data 12

Description: Differentially expressed genes between MOFA LNEN clusters

File Name: Supplementary Data 13

Description: Genes selected by the regularized GLM model based on the expression of core genes of LNET cluster B

File Name: Supplementary Data 14

Description: Summary statistics

File Name: Supplementary Data 15

Description: Differentially expressed genes between histological types

File Name: Supplementary Data 16

Description: Differentially methylated positions between histological types

File Name: Supplementary Data 17

Description: Differentially methylated positions between MOFA LNEN clusters

File Name: Supplementary Data 18

Description: Software summary

File Name: Supplementary Software 1

Description: R scripts used for data analysis