Description of Additional Supplementary Files

File Name: Supplementary Data 1 **Description:** Overview of data set

File Name: Supplementary Data 2

Description: List of coverage of HiFi-GS samples included in the study

File Name: Supplementary Data 3

Description: Sample-wise correlation data of methylation levels across methods

File Name: Supplementary Data 4

Description: Characteristics of extreme hyper-mCpG tiles seen in 2 or less unrelated individuals

File Name: Supplementary Data 5

Description: Number of extreme hyper-mCpG tiles per individual

File Name: Supplementary Data 6

Description: Characteristics of extreme hyper-mCpG tiles with large z-score

File Name: Supplementary Data 7

Description: Number of extreme hyper-mCpG tiles with large z score per individual

File Name: Supplementary Data 8

Description: Characteristics of extreme hyper-mCpG tiles in affected patients only