## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1 Description: ChIP-seq quality control metrics

File Name: Supplementary Data 2 Description: FRIP score and number of peaks from publicly available H3K27ac ChIP-seq samples

File Name: Supplementary Data 3 Description: List of 285 differentially expressed genes between cluster 1, 2 and 3

File Name: Supplementary Data 4 Description: List of significantly enriched gene sets

File Name: Supplementary Data 5. Description: The eight largest networks enriched in cluster 3