Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Summary of clinicopathological characteristics and experiments for the entire cohort

of 84 infants with KMT2A-r leukemia.

File Name: Supplementary Data 2

Description: Quality metrics for RNA sequencing of 61 infants with KMT2A-r leukemia.

File Name: Supplementary Data 3

Description: Fusion transcripts identified in the discovery cohort of 61 infants.

File Name: Supplementary Data 4

Description: Differentially expressed genes for each IC of infant leukemia.

File Name: Supplementary Data 5

Description: Dual-omics molecular markers of infant ALL ICs.

File Name: Supplementary Data 6

Description: Lineage cell type markers obtained from the fetal liver and embryonic single cell

transcriptomics studies.

File Name: Supplementary Data 7

Description: List of genes and regions covered for targeted deep sequencing.

File Name: Supplementary Data 8

Description: Validated non-silent mutations detected by WES in 19 infants from the discovery

cohort.

File Name: Supplementary Data 9

Description: Non-silent mutations detected by targeted deep sequencing in the discovery cohort of

61 infants.

File Name: Supplementary Data 10

Description: Structural variations in the discovery cohort of 61 infants identified by WES and/or

targeted deep sequencing.

File Name: Supplementary Data 11

Description: Validated non-silent mutations detected by WES in 12 infants from the extended

cohort.

File Name: Supplementary Data 12

Description: Non-silent mutations detected by targeted deep sequencing in 11 infants from the

extended cohort.

File Name: Supplementary Data 13

Description: Structural variations identified by WES and/or targeted deep sequencing in 12 infants

from the extended cohort.