

# *UBTF* tandem duplications in pediatric myelodysplastic syndrome and acute myeloid leukemia: implications for clinical screening and diagnosis

Juan M. Barajas,<sup>1\*</sup> Masayuki Umeda,<sup>1\*</sup> Lisett Contreras,<sup>1</sup> Mahsa Khanlari,<sup>1</sup> Tamara Westover,<sup>1</sup> Michael P. Walsh,<sup>1</sup> Emily Xiong,<sup>1</sup> Chenchen Yang,<sup>2</sup> Brittney Otero,<sup>2</sup> Marc Arribas-Layton,<sup>2</sup> Sherif Abdelhamed,<sup>1</sup> Guangchun Song,<sup>1</sup> Xiaotu Ma,<sup>3</sup> Melvin E. Thomas 3rd,<sup>1</sup> Jing Ma<sup>1</sup> and Jeffery M. Klco<sup>1</sup>

<sup>1</sup>Department of Pathology, St. Jude Children's Research Hospital, Memphis, TN; <sup>2</sup>Mission Bio, South San Francisco, CA and <sup>3</sup>Department of Computational Biology, St. Jude Children's Research Hospital, Memphis, TN, USA

\*JMB and MU contributed equally as first authors.

**Correspondence:** J.M. Klco  
[jeffery.klco@stjude.org](mailto:jeffery.klco@stjude.org)

**Received:** November 15, 2023.  
**Accepted:** February 19, 2024.  
**Early view:** February 29, 2024.

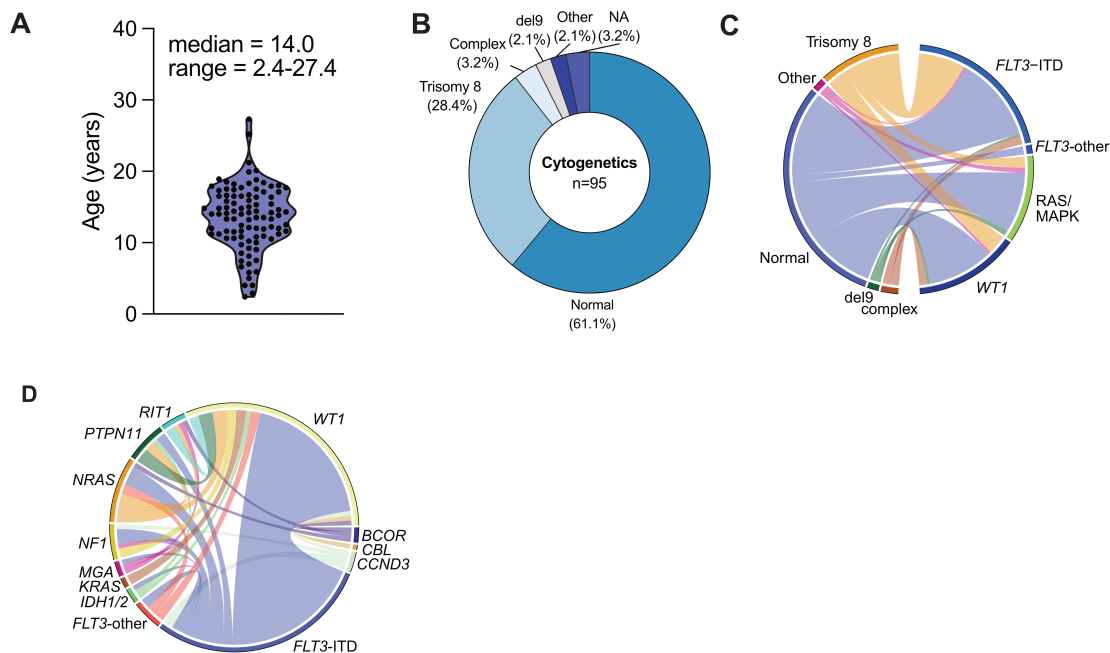
<https://doi.org/10.3324/haematol.2023.284683>

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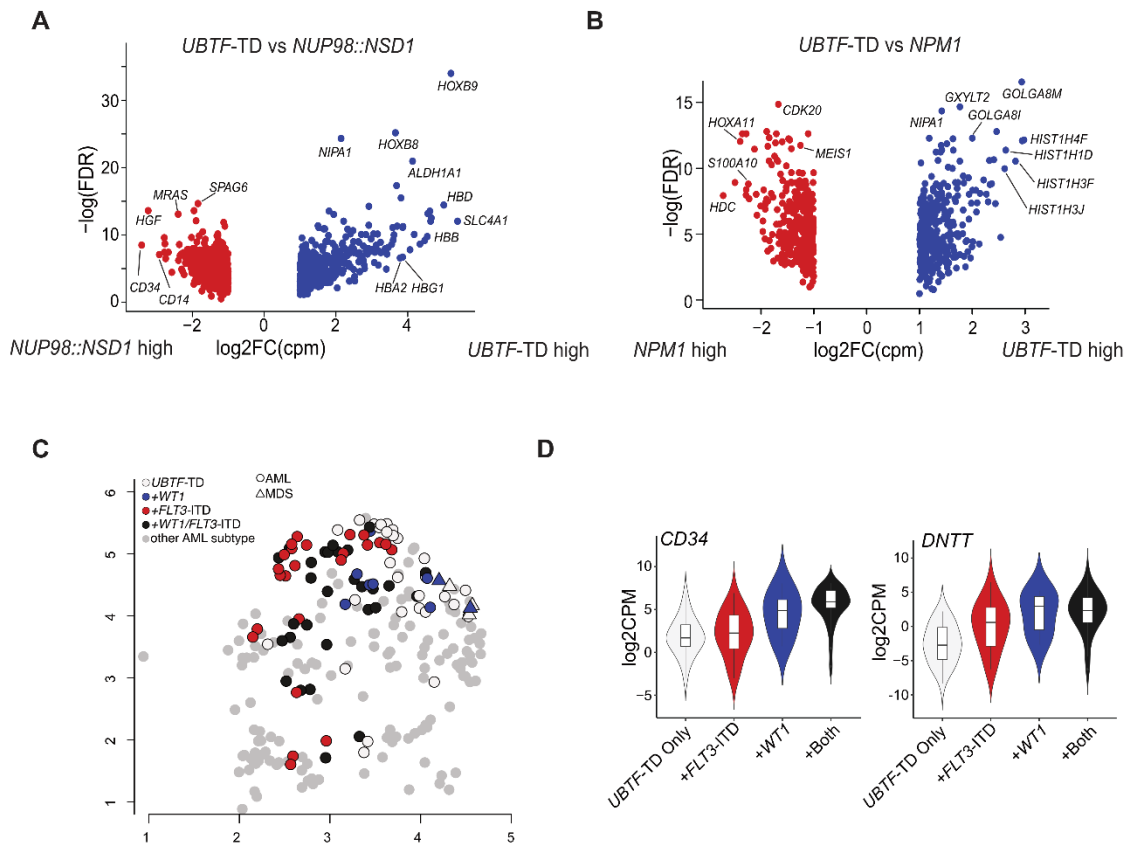
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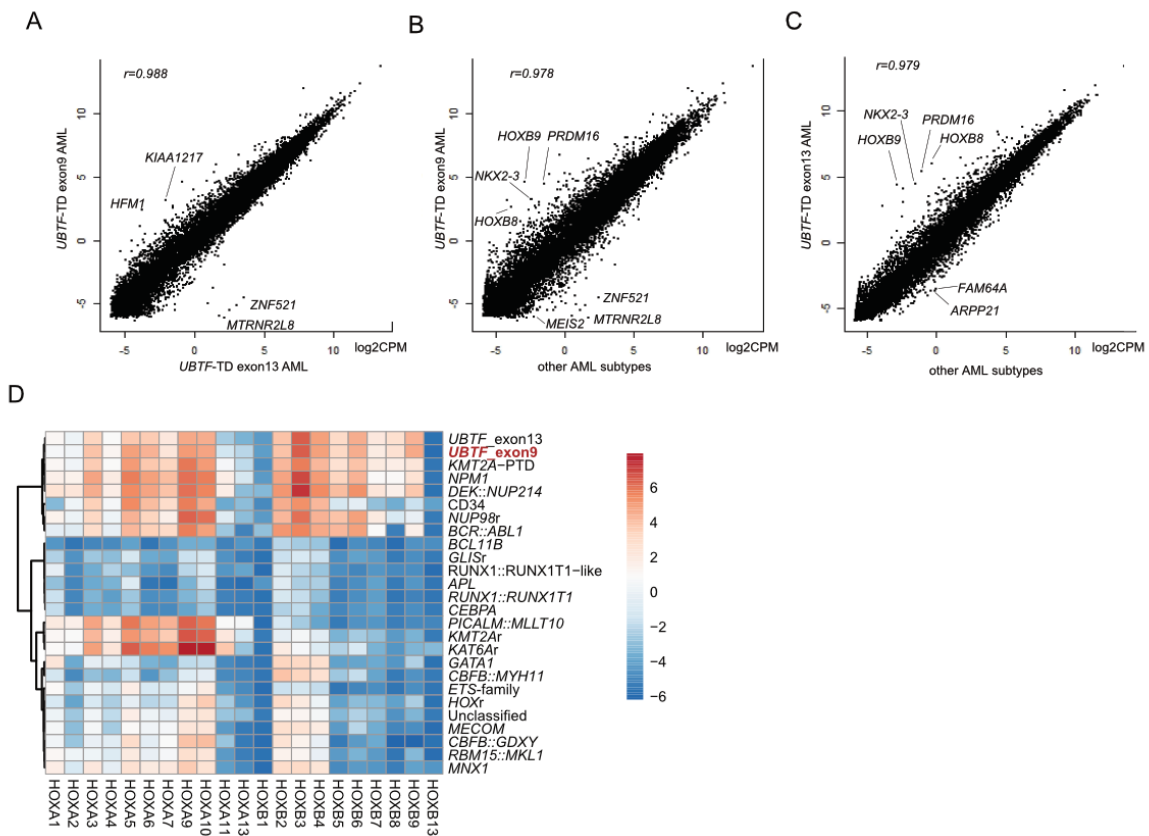
<b>Supplemental Excel Table Legend</b>		
<b>Table Number</b>	<b>File Name</b>	<b>Description</b>
Table 1	Supplemental_Table_1_Mission.Bio.Panel	Mission Bio amplicon panel
Table 2	Supplemental_Table_2_Molecular.Characteristics	Molecular characteristics of 97 UBTF-TD cases
Table 3	Supplemental_Table_3_MissionBioData_Table	Mission Bio resulting SNV calls
Table 4	Supplemental_Table_4_Merged_Clinical.Data	Merged clinical data of UBTF-TD cases
Table 5	Supplemental_Table_5_SNV_Calls	SNV calls used for available UBTF-TD cases
Table 6	Supplemental_Table_6_Data_Availibility	Data availability table



**Supplemental Figure 1.** Molecular and clinical characteristics of *UBTF*-TD myeloid neoplasms. **A.** Age distribution for 95 cases of myeloid neoplasms harboring *UBTF*-TD alterations in years. The median and range are shown as well. **B.** Distribution of cytogenetic changes among *UBTF*-TD cases. **C.** Ribbon plot depicting association of cytogenetics with mutations common in *UBTF*-TD myeloid neoplasms. Genes coding for proteins involved in RAS/MAPK pathway are grouped together (*NF1*, *PTPN11*, *NRAS*, *KRAS*, *RIT1*, *CBL*). All other mutations in *FLT3* not classified as ITD were grouped into *FLT3*-other. **D.** Ribbon plot depicting the association of co-occurring mutations in the *UBTF*-TD cohort. Genes with only one occurrence were excluded.



**Supplemental Figure 2.** Transcriptome analysis of *UBTF-TD* myeloid neoplasms. **A.** Differentially expressed genes between *UBTF-TD* AML and *NUP98::NSD1* pediatric AML. Representative genes are annotated. **B.** Differentially expressed genes between *UBTF-TD* AML and *NPM1*-mutated pediatric AML. **C.** Distribution of *UBTF-TD* cases within the cluster with *HOXA/B* dysregulation (from Figure 4A). Each data point is colored by the mutational status of *UBTF-TD*, *FLT3-ITD*, or *WT1*. MDS cases are depicted with triangles, and AML cases are with circles. **D.** Expression of *CD34* and *DNMT* with respect to *FLT3* and *WT1* mutational status. *UBTF-TD* only cases are defined as those lacking a *FLT3* or *WT1* alteration.



**Supplemental Figure 3.** *UBTF*-TD exon9 AMLs have a similar expression profile to exon13 *UBTF*-TD AMLs. **A.** Scatterplot comparing gene expressing of *UBTF*-TD exon9 AMLs to *UBTF*-TD exon13 AMLs. **B.** Gene expression comparison of *UBTF*-TD exon9 AMLs to other AML subtypes. **C.** Gene expression comparison of *UBTF*-TD exon13 AMLs to other AML subtypes. **D.** Heatmap depicting *HOXA/HOXB* gene expression across AML molecular categories (1).

## **Supplemental Methods:**

### *RNA-sequencing and genomic profiling*

As we previously performed (1), RNA reads from newly sequenced samples and from samples pulled from existing publications were mapped to the GRCh37/hg19 human genome assembly using the StrongARM pipeline (2). Chimeric fusion detection was carried out using CICERO (v0.3.0)(3). For somatic mutations calling from RNA-seq BAM files, we applied Bambino (v1.07)(4) for single nucleotide variants (SNVs) and RNAindel (v3.0.4) (5, 6) for insertions and deletions (indels), focusing on 87 predefined genes recurrently mutated in pediatric AML and MDS (1). *UBTF*-TD screening was performed as we have reported (7). For the cases with DNA capture sequencing, we called mutations as previously described (7). We also collected mutation calls with DNA data from referenced sources in **Supplemental Table 6**.

### *Cell Culture and Analysis of cord-blood CD34+ Cell Models*

*UBTF*-TD cbCD34+ models were generated as previously described (7). Freshly isolated cord blood CD34+ (cbCD34+) cells were transduced with lentiviral particles from MND-PGK-mCherry constructs expressing N-terminus HA-tagged *UBTF*-wild-type (WT), N-terminus HA-tagged *UBTF*-TD84-exon13, N-Terminus HA-tagged *UBTF*-TD78-exon9 or N-Terminus HA-tagged *UBTF*-TD153-exon9. Transduced cells were sorted for mCherry positivity and expanded as previously described (7). For colony forming unit assay (CFU), 1,000 sorted cells were plated in human methocult (MethoCult™ H4435 Enriched, STEMCELL Technologies) and replated every 10 days. For every replating, 10,000 cells were plated.

### *Cytospins*

For cytopins, 100,000 cells were washed with 1X PBS and spun onto Superfrost Plus Microscope slides (12-660-16, Fisher Scientific) at 800 rpm for 5 min.

Supplemental Table 1. Targeted mutational profiling using Tapestry platform

AmpID	chr	amplicon_start	insert_start	insert_end	amplicon_end	fwd_seq	rev_seq	Genes
AMPL382500	chr7	3920733	3920733	3920962	3920982	GTAGGTCATATGGCCAGGGC	CCGTGACCCAGAAGCTGAT	Z2EF1
AMPL382416	chr3	3923692	3923692	3923993	3923993	CCCGCTGTAGTGGTGGT	TTCCACGATCTTCCCTCCAGT	XIRP1
AMPL382457	chr11	32413353	32413356	32413378	32413383	GTTATTAATTAATTAAGAATAGCCAGCCAC	ACCATTCAGBTAAACCTGTGAG	WTF1
AMPL382458	chr11	32414016	32414041	32414263	32414285	AAATGGGGGTGTTCTTCTTCTTCT	GTGTGACCTCAAGACTGTGAA	WTF1
AMPL382459	chr11	32417725	32417746	32417953	32417974	GGTCTTAGCAGTGTGAGAGC	CCCTTACTCTCGCTCCGAC	WTF1
AMPL382460	chr11	32421306	32421327	32421452	32421561	CCTCTTAGGAGAGGACAGAC	ACACAGCCGCTTCTCTGT	WTF1
AMPL382461	chr11	32438969	32438990	32439209	32439238	CCCACTAGGGGAGGAGGAGAA	TGGTATGTGTTCCTAACCTAGATGTTT	WTF1
AMPL382396	chr1	8547835	8547858	8548058	8548089	ATAAATAATTTGGCAATTTGGTCTTATCAGCC	CATTAAATAGTTTCTTTCCTCTCCAG	WDR63
AMPL382432	chr4	17058489	17058499	17058710	17058738	TTGATATTTTGAAGCTGTGATTAAGTATA	GCCTTTTGAACATTCCTAAATAAAGCA	WDR17
AMPL375319_redesign	chr17	42288168	42288168	42288357	42288376	GTGGGCAAGACTGGGCTC	AGCGAGGCTACACCTTCTT	UBF1
AMPL382553	chrX	47060140	47060164	47060390	47060409	CTGATACACAGATGGTGTCTGTG	TGCCACTCACCACAAGGAC	UBA1
AMPL382398	chr1	114969645	114969645	114969885	114969910	TAAAGTGATTTTCCAAATGAATAACAAACAT	TTCCAGTTCGGTCTATTTTGAAG	TRIM33
AMPL382501	chr7	7572716	7572738	7573038	7573265	TATGTCTACTCCCATCTCC	AGTATGCTCCGCTATAPAA	TP53
AMPL382502	chr7	7573820	7573820	7574037	7574057	GGCTGGCAGCAATGAGAT	TGTCGCTCTGTGTGTG	TP53
AMPL382503	chr7	7576808	7576837	7576852	7576877	CCATTTTCACTCTTTAAACAATTTTC	GGATGGAGAAATATCCACCTTCAG	TP53
AMPL382504	chr7	7576910	7576929	7577153	7577179	GGTGTGTGGGCACTGTCT	CTTCTCTTCTTCTCTGAGTAGTG	TP53
AMPL382505	chr7	7577369	7577389	7577609	7577631	CCGGGGATGTGATGAGAGGT	CITGGGCGCTGTGATCTGCTA	TP53
AMPL382506	chr7	7578045	7578066	7578291	7578314	ACCTTTCAGCTTCATGGGGT	CTGATTCCTCAGTGTCTGCTCT	TP53
AMPL382507	chr7	7578333	7578333	7578561	7578579	CAACGAGCCCTGTGCTCT	CTGTGTCTCTCTCTCTCT	TP53
AMPL382508	chr7	7579700	7579700	7579929	7579949	ACCCTAACCTTGTCTTAC	CCTTTCGACGACGACAGAT	TP53
AMPL382464	chr11	117789269	117789289	117789512	117789533	CCGGGATGAGGACCTGGAAA	ACCTTCAGCTGGAGCATCTCC	TPM3RS13
AMPL382411	chr2	121974629	121974652	121974874	121974898	ACTGTGACAAAGACTGTCTCC	TCTGTGATACAGTAAGTAGTACA	TFCP2L1
AMPL382436	chr5	100147444	100147465	100147686	100147713	CAGTCTATTGTGGTATGCTGA	TTTAAATGGAAAGCGGCTAAATATCA	STR5IA4
AMPL375320	chrX	155007070	155007090	155007306	155007339	CCGAGAGAGGCGCTTCTCAG	GTCCATACATATAAATAATAGAGATGTGA	SPRY3
AMPL382434	chr5	12859544	12859544	12859568	12859593	CCGCTCTCTCTCTCTCTCT	CTGTGTCTCTCTCTCTCTCT	SLC35G5
AMPL382554	chrX	128595311	128595344	128595528	128595550	TACAATAATAGATTGACAGTATATAGT	CGAAATGCTCCCAAGTTAGAT	SMARCA1
AMPL382497	chr16	62789621	62789848	62789888	62789928	CCAGGGCTCATGCTCAAC	CCGAGACTCTCGCTCAAG	SLC9A5
AMPL382449	chr8	17420778	17420822	17425022	17425047	TAGACCTTCACACAGGAAATGT	AACAACATCAACACACACATCT	SLC7A2
AMPL382530	chr7	79218546	79218585	79218795	79218815	ATCTTGAACTCTGAGCGCG	CITTTGCTTACCAACAGCT	SLC38A10
AMPL382448	chr7	11189496	11189506	11189730	11189753	GGTGTGGGCTCATATGCA	GACTGTGCTTCTGAGATTAATTAAT	SLC35G5
AMPL382395	chr7	67465243	67465268	67465482	67465507	AATCAGTTGATCATGACATGAGAA	CGCTGCTCAGTTGCATATATGT	SLC35D1
AMPL382465	chr2	8025587	8025587	8025587	8025586	CCGCTGCTGCTCTCGGAA	AATGATACGTTACACACCTCTA	SLC2A14
AMPL382495	chr16	13198049	13198071	13198293	13198318	AATTCAGTTCGCTCAAGGT	ATTGATTCGATTTGGAGTTTCC	SHISA9
AMPL382418	chr3	47098245	47098275	47098494	47098514	CCGAGTTTAACTAACCTCCCAAGACACAG	GTGGCTGCTTGGCAGTCC	SEID2
AMPL382499	chr6	82032445	82032469	82032694	82032714	TCTATGGCTCAAACTGACTCTTA	GGAGGGCCGCAAAATAGAT	SDRA2E1
AMPL382406	chr2	237811663	237811687	237811912	237811932	ACAGTGTGACAAACAGCA	TTGATATGAGAAATGCTGAT	SPF1
AMPL382547	chr21	38171492	38171519	38171728	38171748	ACCATTTTCACTTAAATGTTGCTG	ATCCACCACTCCCAACGCT	RUNX1
AMPL382548	chr21	38206682	38206702	38206892	38206913	CGAATGGGCTCATCTGTTA	TGCTCCCAATAGGACATCT	RUNX1
AMPL382549	chr21	38231626	38231648	38231874	38231894	ATGAGAAATTTGGGTTTACGG	CTGTATGCTGTCCCAACCT	RUNX1
AMPL382550	chr21	38252281	38252281	38252296	38252307	TGCTGATGATTTGAAATGTGGGTTGT	TGTTAGTGGTGGCCCTAGG	RUNX1
AMPL382336	chr20	93302587	93302597	93302747	93302767	TTGATGAGCTGCTGCTGCTG	CTGATGAGCTGCTGCTGCTG	RASL12
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AMPL382498	chr16	74660074	74660098	74660319	74660343	GAACCAAGCAACTCCACATAC	ACCCTACTGCAAACTATGCCAA	RFPW3
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AMPL382394	chr1	33146779	33146794	33146974	33146996	TTTTTAACTAGTAGATCTTGTGACC	TTTTGGCCAGAGTGTAGAA	RBPB4_SYNC
AMPL382403	chr1	178411674	178411674	178411894	178411916	TGTTTAGAGCTGTGTTAACTAAGC	AGGGTATCTTAAAGGGCAGAT	RASL12
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AMPL382410	chr2	70315328	70315350	70315550	70315571	CATCAGCAATGGGCTGCT	CGGAGAAAATGGTGTCTGCT	PCBP1
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AMPL382405	chr1	228563228	228563248	228563483	228563483	GAGAGGCCCTCTCAACT	ATTCCAGGCTCCAGAC	OBSCN
AMPL382399	chr1	115256292	115256318	115256536	115256561	TCAAACAACCTAAACCACTCTCT	GTGTTTGGATCATCTGATGATA	NFAS
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AMPL382525	chr7	29676002	29676027	29676252	29676271	ATGCTTATTTTGGAAATGAGT	ACCCTGTAAGTAGGCAAGT	NF1
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AMPL382527	chr7	29683837	29683837	29684078	29684078	ATATGATGACCAATTTGCTGGG	ATATGATGACCAATTTGCTGGG	NF1
AMPL382528	chr7	29709097	29709332	29701152	29701176	CACAGAAATGCCATATGATTTG	GCCTCACCAATCTTCTAATGCT	NF1
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AMPL382488	chr3	101707013	101707040	101707253	101707281	ACAGTTTCATTAACATAAAGTAGGAGCA	GGTATATTTAGGATCAAGGGGTTATAG	NALCN
AMPL382451	chr11	113562507	113562529	113562756	113562776	GGTGGTGTGCTTTGGAGTGT	GGGAAAGCAAGCTCTGCA	MUSK
AMPL382486	chr6	58020296	58020296	58020446	58020483	ATGTTGCTGCTGCTGCTG	ATGTTGCTGCTGCTGCTG	NF1
AMPL382477	chr12	11845732	11845738	118457611	118457836	ATGTTGCTGCTGCTGCTG	ATGTTGCTGCTGCTGCTG	NF1
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AMPL382532	chr19	11217066	11217087	11217304	11217324	TTTTTTCACAGCAAGCTGG	CTATTCCTCCGTCACACTG	LDLR
AMPL382442	chr6	112438712	112438732	112438954				



AMPL382401	chr1	150601762	150601782	150602012	150602030	CGTGACGCAAAAAGTGGCCA	CGCAGGTTGTCCCGTTT	ENSA
AMPL382551	chr21	38877409	38877436	38877658	38877678	CTGTAACCTACCATGCTTTGGGATAGT	ATGACCTGACTCCCAGAC	DYRK1A
AMPL382408	chr2	25456993	25457014	25457242	25457262	ATTTCCGCCTCTGGTTTT	TGACCTGCCACATGAGCC	DNMT3A
AMPL382447	chr6	1652952	1652977	1653193	1653217	CCTACAAACTCAGTGAACCTACTACG	GGATGTGTACAAGGATCTAACAA	DLGAP2
AMPL382489	chr14	24587393	24587417	24587639	24587662	TTTTCCGGGAACATGGGACATTCC	GGCCCTTGATGCTCTGAAITTA	DCAF11
AMPL382440	chr6	32008096	32008116	32008315	32008333	CTCAGGCTCACTGGGTTGCT	AGGCTAAGGGCACAACCG	CYP21A2, TNXB
AMPL382452	chr10	16878003	16878028	16878238	16878266	TGCTAGCATCTAACCATCCTGGAT	ACTCTAGAATGAGTTTCACTATCAGAT	CUBN
AMPL382433	chr5	11396975	11397004	11397220	11397242	ATATTTATTTCTTCATTCACAGCACC	CTACCATAGCAACCGACCCCTG	CTNND2
AMPL382446	chr7	28848721	28848748	28848949	28848970	TTTTAACTCAGCTTGGTTTTCTCC	ACCTTCCTCTGTGTCTGCAG	CREB5
AMPL382552	chr22	29083699	29083724	29083950	29083968	AAAGAACCAGATTCAAGCAGAAGC	ACTAGTCGAAAGCGGCC	CHEK2
AMPL382453	chr10	50835566	50835587	50835816	50835835	TGCCCAAGGTTACCTGTGAA	TGACCTTCACGAGGACCG	CHAT, FAM28E
AMPL382419	chr3	126138907	126138928	126139121	126139140	CTGCACAGGGGCTCGAAACTA	ACATGGGTGCCACAAGGA	CFAP100
AMPL382463	chr11	93430145	93430168	93430382	93430414	AACAGAAACATACCGGCTTCAG	TGTAAGATATATTTCACTATCTCTGAGAA	CEP295
AMPL382402	chr1	158325036	158325065	158325280	158325301	TTTTCTCCCTTCACTCTTCCATAATG	GGTGTACCAAGAGGGCTTTG	CD1E
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AMPL382455	chr11	375851	375871	376101	376120	ACGCATGGAATCTTCGAGCC	TGGGTGAGCCAGCTGTAGT	B4GALNT4
AMPL382537	chr20	30956629	30956659	30956873	30956898	TCTGAGTGATTAATGTGAATTCATTG	GGCAGTTATAAAACAACCCCTCTC	ASXL1
AMPL382538	chr20	31015701	31015729	31015946	31015966	GAAGCCCTATAAATGTTAATGAAATG	TGTAGCTGGATGGCGAGAC	ASXL1
AMPL382539	chr20	31021228	31021247	31021477	31021497	GAAACGCTCTCGGCCAGAT	CGTGCCAAAGTTGTCTGGCTC	ASXL1
AMPL382540	chr20	31021498	31021518	31021671	31021690	TGCCCTCGCATCTCCAGACA	AGTGGGCTGTGGCTTTTGG	ASXL1
AMPL382541	chr20	31022185	31022198	31022394	31022414	GTTTTGCTTACAGTCCCTAGGT	ATGGAGTGTGACTCTGG	ASXL1
AMPL382542	chr20	31022694	31022716	31022941	31022963	GAGSAAACCTGCCTACTACAGA	AGACAGATGGGACCATTTGCT	ASXL1
AMPL382543	chr20	31023151	31023180	31023395	31023414	ATACTAGACAGAAACTTGAAAAACAAG	CTCCTCGAGATGGCAGT	ASXL1
AMPL382544	chr20	31023416	31023436	31023583	31023605	CAGTGACAGCAATGGGACTT	GTCCACCGAAGATCCCTTTGC	ASXL1
AMPL382545	chr20	31023620	31023641	31023816	31023835	CAATTGGAACCAATCTGCCCC	AGTGGTTAGTGGCCTOCA	ASXL1
AMPL382435	chr5	53182189	53182215	53182436	53182458	GTAGTGTGACTTGACGTTAATGCGG	TGAAAGACAGCTTCTCTCAGCT	ARI15
AMPL382407	chr2	21224222	21224243	21224466	21224489	ACAGTTTTGTCTGTCCAGAA	CAGTAGCGAGTAGACTATAAGCAGA	AF0B
AMPL382454	chr10	127806543	127806564	127806786	127806811	TGTGGGATACCGTAGCTGA	TTGTTCTTTTCAACAGGGGACTT	ADAM12
AMPL382534	chr19	51293576	51293595	51293824	51293844	AGGGCTGCTATAATGGGG	ACAGGACTGGTCAGGGCTAG	ACP4

Supplemental Table 2. Molecular Characteristics of UBF7-TD Cases ITD: internal tandem duplication PTD: partial tandem duplication VAF: variant allele frequency

Comboid	SJID	SJUID/US	Type	chromosome	DNA contig (2)	DNA contig (5)	size	RNA contig (3)	RNA contig (5)	VAF	exon13 amino acid
SJAM.061515 R1	SJ011106	SJAM.061515 R1	ITD	17	42288187	42288217	31			13.5	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLKSESELTRLLARMMWDLSEKKK
SJAM.074143 R1	SJ074146	SJAM.074143 R1	ITD	17	42288186	42288211	25			17.1	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLVETPDLTRLLARMMWDLSEKKK
SJAE.040151 D1	SJ040151	SJAE.040151 D1	ITD	17	42288186	42288237	51			19.1	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSLLERPELSESELTRLLARMMSEKKK
SJMD.011584 D1	SJ011584	SJMD.011584 D1	ITD	17	42288185	42288217	32			22.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSESELTRLLARMMWDLSEKKK
SJAM.046618 D1	SJ046618	SJAM.046618 D1	ITD	17	42288186	42288273	87			22.3	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSIFSEKRRLOQERPELSESELTRLLARMMWDLSEKKK
SJAM.063282 R1	SJ063282	SJAM.063282 R1	ITD	17	42288186	42288247	111			22.6	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSEKRVLRPGALQERPELSESELTRLLARMLHSEKKK
SJAM.033356 D1	SJ033356	SJAM.033356 D1	ITD	17	42288187	42288217	31			22.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLVETPDLTRLLARMMWDLSEKKK
SJAM.040691 R1	SJ040691	SJAM.040691 R1	ITD	17	42288183	42288365	182			23.2	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMARPLDPSGTHGPRPAPAGGGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDLSEKKK
SJAM.016586 D1	SJ016586	SJAM.016586 D1	ITD	17	42288187	42288250	63			23.4	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLQERPELSESELTRLLARMMWDLSEKKK
SJAM.074146 D1	SJ074146	SJAM.074146 D1	PTD	17	42288174	42288376	252			24.4	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSEKKK
SJAM.031106 D1	SJ031106	SJAM.031106 D1	ITD	17	42288187	42288219	31			24.7	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLQERPELSESELTRLLARMMWDLSEKKK
SJAE.015022 D1	SJ015022	SJAE.015022 D1	ITD	17	42288187	42288237	50			25.6	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSITLPELSESELTRLLARMMWDLSEKKK
SJAM.001428 D1	SJ001428	SJAM.001428 D1	ITD	17	42288186	42288223	37			25.6	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSLSSESELTRLLARMMWDLSEKKK
SJAM.065458 D1	SJ065458	SJAM.065458 D1	ITD	17	42288188	42288219	31			27.4	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLQERPELSESELTRLLARMMWDLSEKKK
SJAM.011880 D1	SJ011880	SJAE.011880 D1	PTD	17	42288052	42288396	344	42288164	42288317	28.1	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSEKKK
SJMD.031973 D1	SJ031973	SJMD.031973 D1	ITD	17	42288184	42288231	47			28.7	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMPSELSESELTRLLARMMWDLSEKKK
SJAM.046628 D1	SJ046628	SJAM.046628 D1	ITD	17	42288185	42288221	36			28.9	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLRERADPPELSESELTRLLARMMPLSEKKK
SJAM.064708 D1	SJ064708	PAUIB	ITD	17	42288187	42288221	34			29.0	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSLLELSESELTRLLARMMWDLSEKKK
SJAM.030740 D1	SJ030740	SJAM.030740 D1	ITD	17	42288187	42288228	41			29.4	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSESELTRLLARMMWDLSEKKK
SJAM.065218 D1	SJ065218	PAWDEG	ITD	17	42288187	42288216	29			29.7	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLTQSGESELTRLLARMMWDLSEKKK
SJAM.040500 D1	SJ040500	SJAM.040500 D1	ITD	17	42288187	42288333	166			29.7	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLQERPELSESELTRLLARMMWDLSEKKK
SJAM.032070 D1	SJ032070	SJAM.032070 D1	ITD	17	42288178	42288217	39			30.0	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDLSEKKK
SJMD.046322 D1	SJ046322	SJMD.046322 D1	ITD	17	42288186	42288220	34			30.2	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSFNESELTRLLARMMWDLSEKKK
SJAM.040278 D3	SJ040278	SJAM.040278 D3	ITD	17	42288177	42288213	36			30.3	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDRSEEGVDELTRLLARMMWDLSEKKK
SJAM.016564 D1	SJ016564	SJAM.016564 D1	ITD	17	42288185	42288217	32			30.5	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLRERADVSELTRLLARMMWDLSEKKK
SJAM.061519 R1	SJ061519	SJAM.061519 R1	ITD	17	42288179	42288217	38			30.5	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDEDMSELTRLLARMMWDLSEKKK
SJAM.064873 D1	SJ064873	PAWAEF	ITD	17	42288187	42288219	32			31.0	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLNISESELTRLLARMLNISESELTRLLARMMWDLSEKKK
SJAM.015028 R1	SJ015028	SJAM.015028 R1	ITD	17	42288185	42288242	57			31.6	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSEKKEPELSESELTRLLARMLSPSLSEKKK
SJAM.016566 D1	SJ016566	SJAM.016566 D1	ITD	17	42288187	42288214	27			32.1	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSESELTRLLARMMWDLSEKKK
SJMD.046307 D1	SJ046307	SJMD.046307 D1	ITD	17	42288185	42288318	133			32.3	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLQERPELSESELTRLLARMMWDLSEKKK
SJAM.065454 D1	SJ065454	PAKDM	ITD	17	42288186	42288223	37			32.5	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLGASSELTRLLARMMWDLSEKKK
SJAM.040658 D1	SJ040658	SJAM.040658 D1	PTD	17	42288186	42288257	1171	NA	NA	32.5	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSIQHKLNISEEGGKTSITLTAEROLKQKFDGPRTPKP
SJAM.065410 D1	SJ065410	PAWRSP	ITD	17	42288186	42288219	33			32.6	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSLQAESELTRLLARMMWDLSEKKK
SJAM.016569 D1	SJ016569	SJAM.016569 D1	ITD	17	42288178	42288213	37			32.6	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSESELTRLLARMMWDLSEKKK
SJAM.065037 D1	SJ065037	PAVNHJ	ITD	17	42288186	42288217	31			33.1	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSIHQSESELTRLLARMMWDLSEKKK
SJAM.065276 D1	SJ065276	PAWHFV	ITD	17	42288187	42288218	31			33.2	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLERADPAGVSELTRLLARMMWDLSEKKK
SJAM.015374 R2	SJ015374	SJAM.015374 R2	ITD	17	42288176	42288213	33			33.3	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDRSEEGVDELTRLLARMMWDLSEKKK
SJAM.065072 D1	SJ065072	PAVRWJ	ITD	17	42288183	42288214	31			33.5	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWVPELTRLLARMMWDLSEKKK
SJAM.065027 D1	SJ065027	PAVWNA	ITD	17	42288185	42288221	36			33.5	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLTPPELSESELTRLLARMMWDLSEKKK
SJAM.065319 D1	SJ065319	PAWJK	PTD	17	42288174	42288479	365	42288166	42288315	33.6	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDLSEKKKGGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDLSEKKK
SJAM.030286 D1	SJ030286	SJAM.030286 D1	ITD	17	42288178	42288216	36			33.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDDVSELTRLLARMMWDDVSELTRLLARMMWDLSEKKK
SJAM.064802 D1	SJ064802	PAVJEF	ITD	17	42288181	42288216	35			34.7	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDDVSELTRLLARMMWDDVSELTRLLARMMWDLSEKKK
SJAM.064888 D1	SJ064888	PAVJVS	ITD	17	42288188	42288250	62			34.7	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSLSQERPELSESELTRLLARMMWDLSEKKK
SJAM.064985 D1	SJ064985	PAVJCS	ITD	17	42288183	42288216	35			35.2	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSSSELTRLLARMMWDLSEKKK
SJAM.040627 D1	SJ040627	SJAM.040627 D1	ITD	17	42288184	42288231	47			35.2	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMPSELSESELTRLLARMMWDLSEKKK
SJAM.065573 D1	SJ065573	PAWCVK	PTD	17	42287923	42288404	481	42288160	42288315	35.5	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSEKKKGGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSEKKK
SJAM.046621 D1	SJ046621	SJAM.046621 D1	ITD	17	42288187	42288218	37			35.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSSSELTRLLARMMWDLSEKKK
SJAM.046592 D1	SJ046592	SJAM.046592 D1	ITD	17	42288187	42288227	35			35.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMPADDLSESELTRLLARMPADDLSEKKK
SJAM.065425 D1	SJ065425	PAWSTK	ITD	17	42288187	42288250	63			36.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLQERPELSESELTRLLARMMWDLSEKKK
SJAM.065529 R1	SJ065529	PAWVZ	ITD	17	42288260	42288296	36			37.0	ExonP: EIMDYTKQHPFNISEIGKTSITLTAEROLKQKFDGQITSEIGKTSITLTAEROLKQKFDGPRTPKP
SJAM.065150 D1	SJ065150	PAVJUK	ITD	17	42288186	42288223	37			37.1	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSIQSESELTRLLARMMWDLSEKKK
SJAM.040607 D1	SJ040607	SJAM.040607 D1	ITD	17	42288180	42288385	225			37.3	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMPSEKKQAQVGTGLPGSTHGPSPAPAGGGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMPSEKKKKNSEKKK
SJAM.065516 D1	SJ065516	PAWVRV	ITD	17	42288191	42288219	28			37.3	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLQERPELSESELTRLLARMMWDLSEKKK
SJAM.065028 D1	SJ065028	PAWVK	ITD	17	42288185	42288223	39			37.6	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSSSELTRLLARMMWDLSEKKK
SJAM.064889 D1	SJ064889	PAVBA	ITD	17	42288178	42288213	35			37.7	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDEVELTRLLARMMWDLSEKKK
SJAM.065047 D1	SJ065047	PAVNBZ	ITD	17	42288184	42288231	47			37.7	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMPAPALSESELTRLLARMMWDLSEKKK
SJAM.061508 R1	SJ061508	SJAM.061508 R1	ITD	17	42288187	42288213	46			37.7	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDRSEEGVDELTRLLARMMWDLSEKKK
SJAM.040541 D1	SJ040541	SJAM.040541 D1	ITD	17	42288178	42288214	36			37.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDDVSELTRLLARMMWDLSEKKK
SJAM.065709 D1	SJ065709	PAWLEE	ITD	17	42288174	42288237	63			38.2	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSERPELSESELTRLLARMLSENLSEKKK
SJAE.015026 R1	SJ015026	SJAE.015026 R1	ITD	17	42288172	42288306	134			38.2	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSEKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDLSEKKK
SJAM.015364 D2	SJ015364	SJAM.015364 D2	ITD	17	42288200	42288339	79			38.3	ExonP: EIMDYTKQHPFNISEIGKTSITLTAEROLKQKFDGQITSEIGKTSITLTAEROLKQKFDGPRTPKP
SJAM.074163 D1	SJ074163	SJAM.074163 D1	ITD	17	42288186	42288217	21			38.4	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLQTLHGPKRTEIHSKSMSELTRLLARMMWDLSEKKK
SJAM.065691 D1	SJ065691	PAWKEZ	ITD	17	42288184	42288361	177			38.4	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLPGSTHGPSPAPAGGGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDLSEKKK
SJAM.040549 D1	SJ040549	SJAM.040549 D1	ITD	17	42288183	42288232	49			38.7	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMSEKPELSESELTRLLARMMWDLSEKKK
SJAM.065444 D1	SJ065444	PAWTTJ	ITD	17	42288140	42288226	86			38.9	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSEKRVLRPGALQERPELSESELTRLLARMLSEKKK
SJAM.061258 R1	SJ061258	SJAM.061258 R1	PTD	17	42287969	42288380	421	42288162	42288317	38.9	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDLSEKKK
SJAE.018170 D1	SJ018170	SJAE.018170 D1	ITD	17	42288178	42288217	39			39.1	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDDPSELSESELTRLLARMMWDLSEKKK
SJAM.065572 D1	SJ065572	PAWCVJ	ITD	17	42288187	42288220	33			39.3	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLKIGDESELTRLLARMMWDLSEKKK
SJAM.065014 D1	SJ065014	PAWLSY	ITD	17	42288186	42288220	34			39.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSESELTRLLARMMWDLSEKKK
SJAM.064788 D1	SJ064788	PAWJCS	PTD	17	42288046	42288382	336	42288160	42288315	39.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMPADPNSLSEKKKGGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMPADPNSLSEKKK
SJAM.074185 D1	SJ074185	SJAM.074185 D1	ITD	17	42288157	42288224	67			40.1	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSEKRVLRPGALQERPELSESELTRLLARMLYSEKKK
SJAM.040635 D1	SJ040635	SJAM.040635 D1	ITD	17	42288183	42288273	190			40.4	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMSQGGKGLPGSTHGPSPAPAGGGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDLSEKKK
SJAM.031043 D1	SJ031043	SJAM.031043 D1	PTD	17	42287655	42288162	1107	42287686	42288701	40.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMLSEKKK
SJAM.065728 D1	SJ065728	PAWMAV	ITD	17	42288178	42288215	37			40.8	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMMWDDVDELTRLLARMMWDLSEKKK
SJAM.065191 D1	SJ065191	PAWAS	ITD	17	42288186	42288223	37			40.9	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSLSSESELTRLLARMMWDLSEKKK
SJAM.044828 D1	SJ044828	SJAM.044828 D1	ITD	17	42288184	42288221	37			41.1	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMPRERADPPELSESELTRLLARMMWDLSEKKK
SJAM.040524 D1	SJ040524	SJAM.040524 D1	ITD	17	42288186	42288219	33			41.3	GGSEKPKRPVSAAMIFSEKRRLOQERPELSESELTRLLARMSLQSESELTRLLARMMWDLSEKKK
SJAM.050452 D1	SJ050452	SJAM.050452 D1	PTD	17	42288183	42288481	298	42288183	42288481	41.4	GGSEKPKRPVSAAMIFSEKRR

**Supplemental Table 3. Single-Cell DNA sequencing SNV calls of UBTF-TD Cases**

Gene Name	SJAML010730						Diagnosis		Relapse	
	chr	start	end	ref	alt	aachange	RNA vaf	MB vaf	RNA vaf	MB vaf
<i>WT1</i>	11	32417944		C	CGG	R353fs	NA	not called	NA	38.77%
<i>WT1</i>	11	32417946		T	TCGCAC	R375fs	NA	1.78%	NA	not called
<i>NBEAL</i>	3	47042546		A	AGG	T1454fs	NA	0.00%	NA	32.28%
<i>FLT3-ITD</i>	13	28608286	28608341	-	CTTCGATGAAAGCCAGCTACA		41.50%	95.45%	60	40.06%
<i>UBTF-TD</i>	17	42288183	42288246	-	GAGCTGACCCGCCTGCTGGC		42.70%	95.45%	44.4	40.06%

	SJAML016564						D	
	chr	start	end	ref	alt	aachange	RNA vaf	MB vaf
<i>WT1</i>	11	32417925		-	AAGAGTC	P359fs	NA	67.36%
<i>FLT3</i>	13	28608281		A	T	V592D	NA	20.33%
<i>NRAS</i>	1	115258747		C	T	G12D	NA	11.13%
<i>UBTF-TD</i>	17	42288185	42288217	-	GGTCAGCTCGCTCTCGGAGAC		41.70%	85.76%

**Clone Table SJAML010730**

Diagnosis	Cell Counts	% of Tumor	% of Total
<i>UBTF-TD/FLT3-ITD</i>	1051	0.9813259	0.93672
<i>UBTF-TD/FLT3-ITD/WT1</i>	20	0.0186741	0.017825
WT	51		0.045455
Total Cells	1122		

Relapse	Cell Counts	% of Tumor	% of Total
<i>UBTF-TD/FLT3-ITD/WT1</i>	125	0.192604	0.07716
<i>UBTF-TD/FLT3-ITD/WT1/I</i>	524	0.807396	0.323457
WT	971		0.599383
Total Cells	1620		

**Clone Table SJAML016564**

	Cell Counts	% of Tumor	% of Total
<i>UBTF-TD</i>	124	0.2145329	0.183976
<i>UBTF-TD/WT1</i>	242	0.4186851	0.35905
<i>UBTF-TD/WT1/FLT3</i>	137	0.2370242	0.203264
<i>UBTF-TD/WT1/NRAS</i>	75	0.1297578	0.111276
WT	96		0.142433
Total Cells:	674		

Supplemental Table 5. SNV(single nucleotide variant), indel (insertion/deletion), and ITD (internal tandem duplication) calls in *UBTF*-TD cases

SJID	gene	refseq ID	chromosome	start	amino acid change	class	exon of <i>UBTF</i> tandem duplication
SJAML064755	<i>ZFP36L2</i>	NM_006887	2	43451490	I485fs	frameshift	exon13
SJAML031043	<i>WT1</i>	NM_000378	11	32417915	V362fs	frameshift	exon13
SJAML064988	<i>WT1</i>	NM_000378	11	32417915	V362fs	frameshift	exon13
SJAML064768	<i>WT1</i>	NM_000378	11	32417940	V354fs	frameshift	exon13
SJAML063282	<i>WT1</i>	NM_000378	11	32417921	T360fs	frameshift	exon13
SJAML040696	<i>WT1</i>	NM_000378	11	32417911	S364fs	frameshift	exon13
SJAML061519	<i>WT1</i>	NM_000378	11	32417911	S364fs	frameshift	exon13
SJAML064755	<i>WT1</i>	NM_000378	11	32417910	S364fs	frameshift	exon13
SJAML065548	<i>WT1</i>	NM_000378	11	32417911	S364fs	frameshift	exon13
SJAML065529	<i>WT1</i>	NM_000378	11	32417910	S364*	nonsense	exon9
SJAML030740	<i>WT1</i>	NM_000378	11	32417910	S364*	nonsense	exon13
SJAML033350	<i>WT1</i>	NM_000378	11	32417910	S364*	nonsense	exon13
SJAML040696	<i>WT1</i>	NM_000378	11	32417910	S364*	nonsense	exon13
SJAML046626	<i>WT1</i>	NM_000378	11	32417910	S364*	nonsense	exon13
SJAML064802	<i>WT1</i>	NM_000378	11	32417910	S364*	nonsense	exon13
SJAML065516	<i>WT1</i>	NM_000378	11	32417910	S364*	nonsense	exon13
SJAML065548	<i>WT1</i>	NM_000378	11	32417910	S364*	nonsense	exon13
SJMDS046307	<i>WT1</i>	NM_000378	11	32417910	S364*	nonsense	exon13
SJMDS046307	<i>WT1</i>	NM_000378	11	32414250	R417P	missense	exon13
SJAML063282	<i>WT1</i>	NM_000378	11	32414262	R413>R*T	nonsense	exon13
SJAML032070	<i>WT1</i>	NM_000378	11	32417914	R363fs	frameshift	exon13
SJAML046600	<i>WT1</i>	NM_000378	11	32417913	R363fs	frameshift	exon13
SJAML065037	<i>WT1</i>	NM_000378	11	32417914	R363fs	frameshift	exon13
SJAML065150	<i>WT1</i>	NM_000378	11	32417912	R363fs	frameshift	exon13
SJAML074146	<i>WT1</i>	NM_000378	11	32417912	R363fs	frameshift	exon13
SJAML074163	<i>WT1</i>	NM_000378	11	32417914	R363fs	frameshift	exon13
SJAML061258	<i>WT1</i>	NM_000378	11	32417909	R363_S364fs	frameshift	exon13
SJAML046618	<i>WT1</i>	NM_000378	11	32417943	R353fs	frameshift	exon13
SJAML050452	<i>WT1</i>	NM_000378	11	32417943	R353fs	frameshift	exon13
SJAML040635	<i>WT1</i>	NM_000378	11	32413581	Q440*	nonsense	exon13
SJAML015028	<i>WT1</i>	NM_000378	11	32417924	P359fs	frameshift	exon13
SJAML016564	<i>WT1</i>	NM_000378	11	32417925	P359fs	frameshift	exon13
SJAML044833	<i>WT1</i>	NM_000378	11	32456263	P210fs	frameshift	exon13
SJAML046592	<i>WT1</i>	NM_000378	11	32456556	P111_G112fs	frameshift	exon13
SJMDS046322	<i>WT1</i>	NM_000378	11	32417903	L361_S366fs	frameshift	exon13
SJAML061515	<i>WT1</i>	NM_000378	11	32417911	L361_S364fs	frameshift	exon13
SJAML044829	<i>WT1</i>	NM_000378	11	32413556	H448R	missense	exon13
SJMDS031973	<i>WT1</i>	NM_000378	11	32413556	H448R	missense	exon13
SJAML040589	<i>WT1</i>	NM_000378	11	32413612	G430_E8splice	splice	exon13
SJAML064768	<i>WT1</i>	NM_000378	11	32417801	G400_E6splice_region	splice_region	exon13
SJAML065319	<i>WT1</i>	NM_000378	11	32417801	G400_E6splice_region	splice_region	exon13
SJAML061519	<i>WT1</i>	NM_000378	11	32417890	E370_K371fs	frameshift	exon13
SJAML064774	<i>WT1</i>	NM_000378	11	32421574	E323*	nonsense	exon13
SJAML015028	<i>WT1</i>	NM_000378	11	32413584	C439fs	frameshift	exon13
SJAML015373	<i>WT1</i>	NM_000378	11	32417908	A365fs	frameshift	exon13
SJAML040656	<i>WT1</i>	NM_000378	11	32417908	A365fs	frameshift	exon13
SJAML040696	<i>WT1</i>	NM_000378	11	32417908	A365fs	frameshift	exon13
SJAML065037	<i>WT1</i>	NM_000378	11	32417908	A365fs	frameshift	exon13
SJAML065255	<i>WT1</i>	NM_000378	11	32417908	A365fs	frameshift	exon13
SJAML074141	<i>WT1</i>	NM_000378	11	32417908	A365fs	frameshift	exon13
SJMDS046307	<i>WT1</i>	NM_000378	11	32417908	A365fs	frameshift	exon13
SJAML015373	<i>WT1</i>	NM_000378	11	32417926	A358_P359fs	frameshift	exon13
SJAML044833	<i>WT1</i>	NM_000378	11	32456259	A211fs	frameshift	exon13
SJAML016586	<i>U2AF1</i>	NM_006758	21	44514780	R156H	missense	exon13
SJAML040549	<i>TET2</i>	NM_001127208	4	106157848	Q917*	nonsense	exon13
SJAML065348	<i>STAT5B</i>	NM_012448	17	40371364	P267S	missense	exon13
SJAML030740	<i>SETD2</i>	NM_014159	3	47098487	G2263fs	frameshift	exon13
SJAML064802	<i>RUNX1</i>	NM_001754	21	36259170	R107fs	frameshift	exon13
SJMDS046322	<i>RIT1</i>	NM_006912	1	155874282	T83>TG	proteinIns	exon13
SJAML065456	<i>RIT1</i>	NM_006912	1	155874261	M90I	missense	exon13
SJAML040691	<i>RIT1</i>	NM_006912	1	155874285	F82L	missense	exon13
SJAML040541	<i>RIT1</i>	NM_006912	1	155874286	F82C	missense	exon13
SJAML061258	<i>RIT1</i>	NM_006912	1	155874530	A77T	missense	exon13
SJAML065027	<i>RB1</i>	NM_000321	13	49030386	R621C	missense	exon13
SJAML046626	<i>PTPN11</i>	NM_002834	12	112926885	S502L	missense	exon13
SJAML031043	<i>PTPN11</i>	NM_002834	12	112926887	G503R	missense	exon13
SJAML061519	<i>PTPN11</i>	NM_002834	12	112888197	F71L	missense	exon13
SJAML064708	<i>PTPN11</i>	NM_002834	12	112888166	D61A	missense	exon13
SJAML046621	<i>PTPN11</i>	NM_002834	12	112888199	A72V	missense	exon13
SJAEI015022	<i>NTRK1</i>	NM_001012331	1	156851358	H766R	missense	exon13
SJAML001428	<i>NRAS</i>	NM_002524	1	115256529	Q61R	missense	exon13
SJAML046621	<i>NRAS</i>	NM_002524	1	115256529	Q61R	missense	exon13
SJAML064831	<i>NRAS</i>	NM_002524	1	115256529	Q61R	missense	exon13
SJAML065218	<i>NRAS</i>	NM_002524	1	115258744	G13V	missense	exon13
SJAML065425	<i>NRAS</i>	NM_002524	1	115258745	G13R	missense	exon13
SJAML016566	<i>NRAS</i>	NM_002524	1	115258744	G13D	missense	exon13
SJAML040688	<i>NRAS</i>	NM_002524	1	115258744	G13D	missense	exon13
SJAML046621	<i>NRAS</i>	NM_002524	1	115258744	G13D	missense	exon13

SJAML065728	NRAS	NM_002524	1	115258744	G13D	missense	exon13
SJAML046621	NRAS	NM_002524	1	115258745	G13C	missense	exon13
SJAML065444	NRAS	NM_002524	1	115258745	G13C	missense	exon13
SJAEL015022	NRAS	NM_002524	1	115258747	G12V	missense	exon13
SJAML016569	NRAS	NM_002524	1	115258748	G12S	missense	exon13
SJAML031043	NRAS	NM_002524	1	115258748	G12S	missense	exon13
SJAML065276	NRAS	NM_002524	1	115258748	G12S	missense	exon13
SJAML016564	NRAS	NM_002524	1	115258747	G12D	missense	exon13
SJAML061506	NRAS	NM_002524	1	115258747	G12D	missense	exon13
SJAML065028	NRAS	NM_002524	1	115258747	G12D	missense	exon13
SJMDS046322	NRAS	NM_002524	1	115258747	G12D	missense	exon13
SJAML031106	NF1	NM_000267	17	29554567	W784C	missense	exon13
SJAML065047	NF1	NM_000267	17	29553478	T676fs	frameshift	exon13
SJAML064774	NF1	NM_000267	17	29483034	T32fs	frameshift	exon13
SJAML064774	NF1	NM_000267	17	29533378	R461*	nonsense	exon13
SJAML015028	NF1	NM_000267	17	29497003	K191fs	frameshift	exon13
SJAML061506	MYC	NM_002467	8	128750675	L71>LV	proteinIns	exon13
SJAML040691	MGA	NM_001164273	15	42041813	P2003fs	frameshift	exon13
SJAML065047	MGA	NM_001164273	15	41988996	A596fs	frameshift	exon13
SJAML065691	LZTR1	NM_006767	22	21340161	D99N	missense	exon13
SJAML040656	KRAS	NM_033360	12	25380279	G60D	missense	exon13
SJMDS046307	KRAS	NM_033360	12	25398281	G13D	missense	exon13
SJAML061519	IDH1	NM_002168	15	90631934	R140Q	missense	exon13
SJAML065014	IDH1	NM_005896	2	209113112	R132H	missense	exon13
SJAML065691	IDH1	NM_005896	2	209113112	R132H	missense	exon13
SJAML061506	HNRNPK	NM_002140	9	86587092	G220*	nonsense	exon13
SJAML015364	GATA2	NM_001145661	3	128202706	R337_R338fs	frameshift	exon9
SJAML016564	FLT3	NM_004119	13	28608281	V592D	missense	exon13
SJAML016569	FLT3	NM_004119	13	28609758	V491L	missense	exon13
SJAML015364	FLT3	NM_004119	chr13	28608254	NA	ITD	exon9
SJAML010730	FLT3	NM_004119	chr13	28608286	NA	ITD	exon13
SJAML015028	FLT3	NM_004119	chr13	28608290	NA	ITD	exon13
SJAML015373	FLT3	NM_004119	chr13	28608225	NA	ITD	exon13
SJAML016564	FLT3	NM_004119	chr13	28602427	NA	ITD	exon13
SJAML030286	FLT3	NM_004119	chr13	28608221	NA	ITD	exon13
SJAML030740	FLT3	NM_004119	chr13	28608125	NA	ITD	exon13
SJAML030740	FLT3	NM_004119	chr13	28608237	NA	ITD	exon13
SJAML030740	FLT3	NM_004119	chr13	28608215	NA	ITD	exon13
SJAML032070	FLT3	NM_004119	chr13	28608257	NA	ITD	exon13
SJAML033350	FLT3	NM_004119	chr13	28608259	NA	ITD	exon13
SJAML040549	FLT3	NM_004119	chr13	28608250	NA	ITD	exon13
SJAML040589	FLT3	NM_004119	chr13	28608219	NA	ITD	exon13
SJAML040589	FLT3	NM_004119	chr13	28608217	NA	ITD	exon13
SJAML040607	FLT3	NM_004119	chr13	28608269	NA	ITD	exon13
SJAML040635	FLT3	NM_004119	chr13	28608264	NA	ITD	exon13
SJAML044826	FLT3	NM_004119	chr13	28598998	NA	ITD	exon13
SJAML044826	FLT3	NM_004119	chr13	28608216	NA	ITD	exon13
SJAML044829	FLT3	NM_004119	chr13	28624361	NA	ITD	exon13
SJAML044833	FLT3	NM_004119	chr13	28608269	NA	ITD	exon13
SJAML046592	FLT3	NM_004119	chr13	28608227	NA	ITD	exon13
SJAML046600	FLT3	NM_004119	chr13	28608315	NA	ITD	exon13
SJAML046606	FLT3	NM_004119	chr13	28608221	NA	ITD	exon13
SJAML046618	FLT3	NM_004119	chr13	28624361	NA	ITD	exon13
SJAML046626	FLT3	NM_004119	chr13	28624361	NA	ITD	exon13
SJAML050452	FLT3	NM_004119	chr13	28608228	NA	ITD	exon13
SJAML061515	FLT3	NM_004119	chr13	28608219	NA	ITD	exon13
SJAML061515	FLT3	NM_004119	chr13	28608274	NA	ITD	exon13
SJAML064708	FLT3	NM_004119	chr13	28608193	NA	ITD	exon13
SJAML064755	FLT3	NM_004119	chr13	28608241	NA	ITD	exon13
SJAML064768	FLT3	NM_004119	chr13	28608219	NA	ITD	exon13
SJAML064774	FLT3	NM_004119	chr13	28598998	NA	ITD	exon13
SJAML064802	FLT3	NM_004119	chr13	28608252	NA	ITD	exon13
SJAML064831	FLT3	NM_004119	chr13	28608259	NA	ITD	exon13
SJAML064873	FLT3	NM_004119	chr13	28608214	NA	ITD	exon13
SJAML064889	FLT3	NM_004119	chr13	28608226	NA	ITD	exon13
SJAML064988	FLT3	NM_004119	chr13	28608209	NA	ITD	exon13
SJAML064988	FLT3	NM_004119	chr13	28598998	NA	ITD	exon13
SJAML065014	FLT3	NM_004119	chr13	28608262	NA	ITD	exon13
SJAML065027	FLT3	NM_004119	chr13	28608274	NA	ITD	exon13
SJAML065047	FLT3	NM_004119	chr13	28608254	NA	ITD	exon13
SJAML065047	FLT3	NM_004119	chr13	28608241	NA	ITD	exon13
SJAML065085	FLT3	NM_004119	chr13	28608249	NA	ITD	exon13
SJAML065085	FLT3	NM_004119	chr13	28608259	NA	ITD	exon13
SJAML065150	FLT3	NM_004119	chr13	28608225	NA	ITD	exon13
SJAML065150	FLT3	NM_004119	chr13	28622412	NA	ITD	exon13
SJAML065150	FLT3	NM_004119	chr13	28598998	NA	ITD	exon13
SJAML065246	FLT3	NM_004119	chr13	28608256	NA	ITD	exon13
SJAML065255	FLT3	NM_004119	chr13	28608224	NA	ITD	exon13
SJAML065276	FLT3	NM_004119	chr13	28608218	NA	ITD	exon13
SJAML065276	FLT3	NM_004119	chr13	28608220	NA	ITD	exon13
SJAML065319	FLT3	NM_004119	chr13	28608258	NA	ITD	exon13

SJAML065319	<i>FLT3</i>	NM_004119	chr13	28608239	NA	ITD	exon13
SJAML065348	<i>FLT3</i>	NM_004119	chr13	28598998	NA	ITD	exon13
SJAML065410	<i>FLT3</i>	NM_004119	chr13	28608218	NA	ITD	exon13
SJAML065410	<i>FLT3</i>	NM_004119	chr13	28598998	NA	ITD	exon13
SJAML065425	<i>FLT3</i>	NM_004119	chr13	28598998	NA	ITD	exon13
SJAML065516	<i>FLT3</i>	NM_004119	chr13	28608263	NA	ITD	exon13
SJAML065516	<i>FLT3</i>	NM_004119	chr13	28608251	NA	ITD	exon13
SJAML065548	<i>FLT3</i>	NM_004119	chr13	28608263	NA	ITD	exon13
SJAML065565	<i>FLT3</i>	NM_004119	chr13	28608263	NA	ITD	exon13
SJAML065572	<i>FLT3</i>	NM_004119	chr13	28608256	NA	ITD	exon13
SJAML065573	<i>FLT3</i>	NM_004119	chr13	28608241	NA	ITD	exon13
SJAML065573	<i>FLT3</i>	NM_004119	chr13	28608257	NA	ITD	exon13
SJAML065594	<i>FLT3</i>	NM_004119	chr13	28608218	NA	ITD	exon13
SJAML065594	<i>FLT3</i>	NM_004119	chr13	28598998	NA	ITD	exon13
SJAML065594	<i>FLT3</i>	NM_004119	chr13	28622412	NA	ITD	exon13
SJAML065709	<i>FLT3</i>	NM_004119	chr13	28608247	NA	ITD	exon13
SJAML074141	<i>FLT3</i>	NM_004119	chr13	28608197	NA	ITD	exon13
SJAML074146	<i>FLT3</i>	NM_004119	chr13	28608260	NA	ITD	exon13
SJAML074163	<i>FLT3</i>	NM_004119	chr13	28608228	NA	ITD	exon13
SJAML074185	<i>FLT3</i>	NM_004119	chr13	28608215	NA	ITD	exon13
SJAML046600	<i>FLT3</i>	NM_004119	13	28602340	N676K	missense	exon13
SJAML040627	<i>CSF3R</i>	NM_000760	1	36932108	Y787*	nonsense	exon13
SJAML015028	<i>CHEK2</i>	NM_007194	22	29083950	R523fs	frameshift	exon13
SJAEL011880	<i>CEBPA</i>	NM_004364	19	33792574	P249fs	frameshift	exon13
SJAML015028	<i>CCND3</i>	NM_001760	6	41903704	T281_T285fs	frameshift	exon13
SJAML040549	<i>CCND3</i>	NM_001760	6	41903731	Q276fs	frameshift	exon13
SJAML040696	<i>CBL</i>	NM_005188	11	119148984	T402P	missense	exon13
SJMDS015854	<i>CBL</i>	NM_005188	11	119148970	G397V	missense	exon13
SJAML061258	<i>BCOR</i>	NM_017745	X	39923059	R1183*	nonsense	exon13
SJAML061506	<i>BCOR</i>	NM_017745	X	39913158	Q1619*	nonsense	exon13

Supplemental Table 4. Available Clinical Data of t(8;21)-TD Cases

Comboid	SJL#	SJDA#1	gender	sample source	Age at diagnosis	Timepoint	Diagnosis	FAB/Morphology	SM WHO Classification (2022)	Cytogenetics	Cytogenetics (code)	Bone marrow leukemic blast percentage (%)	Peripheral blasts (%)	WBC count (10 <sup>9</sup> /L)
SJAM040588 D1	S040588	SJAM040588	Female	Not Available	2.4	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	46,XX,t(8;21)	Normal	21	NA	11
SJAM040607 D1	S040607	SJAM040607	Male	Not Available	2.9	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	47,XY,t(8;21)(p11.2)	Trisomy 8	80	NA	1.3
SJAM040626 D1	S040626	SJAM040626	Female	Not Available	4	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	Not Available	Normal	NA	NA	2
SJAM040626 D1	S040626	SJAM040626	Female	Not Available	4	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	46,XX	Normal	NA	NA	2
SJAEI040151 D1	S040151	SJAEI040151	Female	Bone Marrow	5.8	Diagnosis	MDS	M2	Childhood MDS with increased blasts	46,XX	Normal	NA	NA	4
SJAM040508 RT	S040508	SJAM040508	Male	Bone Marrow	7.8	Relapse	AML	M2 (with increased myeloblasts)	Acute myeloid leukemia, myelodysplasia-related	46,XY,t(14;22)(q32;q11.1)t(13;20);46,XY,t(20;20)	Other	13	NA	12
SJAM040600 D1	S040600	SJAM040600	Female	Not Available	5.9	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	46,XX	Normal	NA	NA	2
SJAM040618 D1	S040618	SJAM040618	Female	Not Available	6.8	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	47,XY,t(8;21)(p11.2)	Trisomy 8	35	NA	2.2
SJAM040618 D1	S040618	SJAM040618	Female	Not Available	6.8	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	46,XX	Normal	NA	NA	2
SJAM040635 D1	S040635	SJAM040635	Female	Not Available	7.4	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	46,X,t(20;20)	Normal	30	NA	5.8
SJAM040659 D1	S040659	SJAM040659	Female	Not Available	7.5	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	46,XX,t(3;3)	Normal	NA	NA	2
SJAM040658 D1	S040658	SJAM040658	Male	Not Available	8.1	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	46,XY	Normal	21	0	4.3
SJAM040278 D3	S040278	SJAM040278	Female	Bone Marrow	8.5	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	46,X,t(17;17)(p14.3X)(X1)	Trisomy 8	25	NA	NA
SJAM040621 D1	S040621	SJAM040621	Male	Not Available	8.7	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	46,XY	Normal	NA	NA	2
SJAM030286 RT	S030286	SJAM030286	Male	Bone Marrow	9.2	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	48,XY	Normal	49	NA	20
SJAM030519 RT	S030519	SJAM030519	Male	Not Available	9.7	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	46,XY,t(20;20)	Normal	39	NA	4.6
SJAM030519 RT	S030519	SJAM030519	Male	Not Available	10.0	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	47,XX,t(8;19)(q24;XX4)	Trisomy 8	80	61	23.2
SJAEI015022 D1	S015022	SJAEI015022	Male	Not Available	10.2	Diagnosis	MDS	NA	Childhood MDS with increased blasts	48,XY,t(20;20)	Normal	10	NA	45
SJAM040589 D1	S040589	SJAM040589	Male	Not Available	10.5	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	47,XY,t(8;19)(q24;XX16)	Trisomy 8	48	NA	20
SJAM0301043 D1	S0301043	SJAM0301043	Male	Bone Marrow	10.6	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	Not Available	Normal	NA	NA	3
SJAM030572 D1	S030572	SJAM030572	Male	Not Available	10.8	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	48,XY,t(20;20)	Normal	75	86	133.6
SJAM030584 D1	S030584	SJAM030584	Female	Not Available	10.8	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	47,XX,t(8;20)	Trisomy 8	9	76	140
SJAM010730 D2	S010730	SJAM010730	Male	Bone Marrow	10.8	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	48,XY,t(20;20)	Normal	57	NA	104
SJAM030392 RT	S030392	SJAM030392	Male	Bone Marrow	10.9	Relapse	AML	NA	Acute myeloid leukemia with other defined genetic alterations	46,XX	Normal	17	NA	1
SJAM030574 D1	S030574	SJAM030574	Female	Not Available	11.2	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	47,XX,t(8;20)	Trisomy 8	39.5	13	3.2
SJAM040549 D1	S040549	SJAM040549	Male	Not Available	11.2	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	46,XY,t(20;20)	Normal	70	NA	24
SJAM040549 D1	S040549	SJAM040549	Male	Not Available	11.2	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	46,XX	Normal	NA	NA	NA
SJAM030578 D1	S030578	SJAM030578	Male	Not Available	11.5	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	48,XY,t(30)	Normal	21	1	8
SJMR0301973 D1	S0301973	SJMR0301973	Male	Bone Marrow	11.6	Diagnosis	MDS	NA	Childhood MDS with increased blasts	46,XY,t(20;20)	Normal	3	NA	3
SJAM015373 RT	S015373	SJAM015373	Female	Not Available	11.6	Relapse	AML	M5	Acute myeloid leukemia with other defined genetic alterations	46,XY	Normal	4	NA	4
SJAM030575 RT	S030575	SJAM030575	Male	Peripheral Blood	11.8	Relapse	AML	M0	Acute myeloid leukemia with other defined genetic alterations	47,XY,t(17;20);46,XY,t(8;20)	Trisomy 8	62	NA	NA
SJAM030585 D1	S030585	SJAM030585	Male	Not Available	11.9	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	47,XY,t(8;20)	Trisomy 8	7	78	408.4
SJMR030584 D1	S030584	SJMR030584	Male	Bone Marrow	12	Diagnosis	MDS	NA	Childhood MDS with increased blasts	46,XY,t(20;20)	Normal	18	NA	2
SJAM040429 D1	S040429	SJAM040429	Male	Not Available	12	Diagnosis	AML	M6	Acute myeloid leukemia with other defined genetic alterations	46,XY	Normal	NA	NA	NA
SJAM040408 D1	S040408	SJAM040408	Female	Not Available	12.0	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	46,X,t(3;3)	Normal	23	79	2.7
SJAM040444 D1	S040444	SJAM040444	Female	Not Available	12.1	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	47,XX,t(8;19)(q24;XX12)	Trisomy 8	25	3	2.3
SJAM030240 D1	S030240	SJAM030240	Female	Bone Marrow	12.2	Relapse	AML	M2	Acute myeloid leukemia, myelodysplasia-related	46,XX,t(14;16)(p11.2;p11.2);del(2p13.3)add(6p27.1)(555);46,XX,t(8;21)	Complex	49	NA	NA
SJAM040433 D1	S040433	SJAM040433	Female	Not Available	12.4	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	47,XY,t(1;4)(p13.3;p13.3)	Trisomy 8	NA	NA	NA
SJAM040541 D1	S040541	SJAM040541	Male	Not Available	12.5	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	48,XY,t(20;20)	Normal	25	NA	2
SJAM040448 D1	S040448	SJAM040448	Female	Not Available	13.2	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	47,XX,t(8;20)	Trisomy 8	89	NA	80
SJAM030525 D1	S030525	SJAM030525	Male	Not Available	13.3	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	47,XY,t(8;19)(q24;XX11)	Trisomy 8	44.5	50	25.4
SJAM030691 D1	S030691	SJAM030691	Male	Not Available	13.3	Diagnosis	AML	M5	Acute myeloid leukemia with other defined genetic alterations	47,XY,t(8;19)(q24;XX6)	Trisomy 8	49	NA	1
SJAM030548 D1	S030548	SJAM030548	Female	Not Available	13.3	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	48,XY,t(20;20)	Normal	20	NA	20
SJAM030589 D1	S030589	SJAM030589	Female	Not Available	13.5	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	47,XX,t(8;19)(q24;XX10)	Trisomy 8	4	0	8
SJAM030589 D1	S030589	SJAM030589	Female	Not Available	13.5	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	47,XX,t(8;19)(q24;XX10)	Trisomy 8	49	NA	1
SJAM030542 D1	S030542	SJAM030542	Male	Not Available	13.8	Diagnosis	AML	M2	Acute myeloid leukemia, myelodysplasia-related	46,XY,t(8;21)	Normal	56	NA	NA
SJAEI018170 D1	S018170	SJAEI018170	Female	Not Available	14	Diagnosis	AML	M6	Acute myeloid leukemia with other defined genetic alterations	46,XY,add(12p12)(p12)9i,46,XY,add(12p12)add(12p12)del(2q11)(1)	Complex	NA	NA	NA
SJAM018170 D1	S018170	SJAM018170	Female	Bone Marrow	14	Diagnosis	AML	M2	Acute myeloid leukemia, myelodysplasia-related	46,XY,t(20;20)	Normal	9.7	NA	1
SJAM018170 D1	S018170	SJAM018170	Female	Bone Marrow	14	Diagnosis	AML	M2	Acute myeloid leukemia, myelodysplasia-related	46,XY,t(20;20)	Normal	23	NA	7
SJAM030581 D1	S030581	SJAM030581	Male	Not Available	14.0	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	46,XY,t(20;20)	Normal	31.4	50	2.9
SJAM040627 D1	S040627	SJAM040627	Male	Not Available	14.1	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	48,XY,t(9)	Normal	41	NA	NA
SJAEI015026 RT	S015026	SJAEI015026	Male	Not Available	14.2	Diagnosis	AML	M6	Acute myeloid leukemia with other defined genetic alterations	46,XY	Normal	35	NA	23
SJAM040592 D1	S040592	SJAM040592	Male	Not Available	14.2	Diagnosis	AML	M0	Acute myeloid leukemia with other defined genetic alterations	46,XY	Normal	NA	NA	NA
SJAM030510 D1	S030510	SJAM030510	Male	Not Available	14.3	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	46,XY,t(20;20)	Normal	55	NA	9.3
SJAM040606 D1	S040606	SJAM040606	Male	Not Available	14.4	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	48,XY	Normal	NA	NA	NA
SJAM040606 D1	S040606	SJAM040606	Male	Not Available	14.4	Diagnosis	AML	M2	Acute myeloid leukemia, myelodysplasia-related	46,XY,der(17)t(7;p13;q32)t(6;11)(p21;q24)der(17)t(11;q23)t(17;17)(q10;X)	Complex	82	NA	74
SJAM040600 D1	S040600	SJAM040600	Female	Not Available	14.6	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	46,XY,t(20;20)	Normal	58	NA	29
SJAM030526 D1	S030526	SJAM030526	Female	Not Available	14.8	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	47,XX,t(19;19)(q14;XX1)	Trisomy 8	95	94	210.7
SJAM030523 D1	S030523	SJAM030523	Male	Not Available	14.8	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	47,XY,t(8;20)	Trisomy 8	87	NA	130.9
SJAM018564 D1	S018564	SJAM018564	Male	Bone Marrow	14.8	Diagnosis	AML	M2	Acute myeloid leukemia with other defined genetic alterations	46,XY	Normal	95	NA	NA
SJAM030578 D1	S030578	SJAM030578	Male	Not Available	14.9	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	48,XY,t(20;20)	Normal	91	78	51.5
SJAM030518 D1	S030518	SJAM030518	Female	Not Available	15.0	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	46,X,t(20;20)	Normal	85	NA	11
SJAM010428 D1	S010428	SJAM010428	Male	Bone Marrow	15.3	Diagnosis	AML	M4	Acute myeloid leukemia with other defined genetic alterations	48,XY	Normal	28	NA	12
SJMR030430 D1	S030430	SJMR030430	Female	Not Available	15.4	NA	MDS	NA	Childhood MDS with increased blasts	46,XX,t(20;100%)	Normal	4	2.3	NA
SJMR030432 D1	S030432	SJMR030432	Female	Not Available	15.5	Diagnosis	MDS	NA	Childhood MDS with increased blasts	46,XY,t(20;20)	Normal	15	NA	1
SJAM030258 RT	S030258	SJAM030258	Female	Bone Marrow	15.8	Relapse	AML	M2	Acute myeloid leukemia, myelodysplasia-related	48,XX,t(20;20)	Normal	56	NA	1
SJAM030547 D1	S030547	SJAM030547	Female	Not Available	15.8	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	46,XY,t(20;20)	Normal	86	NA	143.1
SJAM030510 D1	S030510	SJAM030510	Female	Not Available	16.4	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	46,XY,t(20;20)	Normal	0	50	0
SJAM018566 D1	S018566	SJAM018566	Male	Bone Marrow	16.4	Diagnosis	AML	M4	Acute myeloid leukemia with other defined genetic alterations	48,XY,del(9)(p13q22)	del9	20	NA	NA
SJAM030572 D1	S030572	SJAM030572	Female	Not Available	16.5	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	47,XX,t(8;19)(q24;XX18)	Trisomy 8	0	0.9	0
SJAM040698 D1	S040698	SJAM040698	Male	Not Available	16.5	Diagnosis	AML	M6	Acute myeloid leukemia with other defined genetic alterations	46,XY,t(20;20)	Normal	20	NA	2
SJAM040698 D1	S040698	SJAM040698	Male	Not Available	16.5	Diagnosis	AML	M5	Acute myeloid leukemia with other defined genetic alterations	47,XX,t(8;20)	Trisomy 8	99	NA	44
SJAM030516 D1	S030516	SJAM030516	Female	Not Available	16.6	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations	46,XY,t(20;20)	Normal	33	NA	75.5
SJAM030270 D1	S030270	SJAM030270	Male	Bone Marrow	16.7	Diagnosis	AML	M1	Acute myeloid leukemia with other defined genetic alterations	48,XY,t(20;20)	Normal	68	NA	73
SJAM030478 D1	S030478	SJAM030478	Female	Not Available	17.1	Diagnosis	AML	NA	Acute myeloid leukemia with other defined genetic alterations					

Supplemental Table 6. Data availability of UBTF-TD cases

CombiID	SJID	SJID USI	Public Data Repository(EGA/dbGaP) for RNAseq	Cloud link for RNAseq
SJMDS046322 D1	SJ046322	SJMDS046322 D1	Newly uploaded to: <a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://permalinks.stjude.cloud/permalinks/rpaml">https://permalinks.stjude.cloud/permalinks/rpaml</a>
SJMDS046307 D1	SJ046307	SJMDS046307 D1	Targeted Capture Sequencing Only	<a href="https://permalinks.stjude.cloud/permalinks/rpaml">https://permalinks.stjude.cloud/permalinks/rpaml</a>
SJMDS031973 D1	SJ031973	SJMDS031973 D1	Newly uploaded to: <a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1007">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1007</a>
SJAML033350 D1	SJ033350	SJAML033350 D1	Newly uploaded to: <a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1007">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1007</a>
SJMDS015854 D1	SJ015854	SJMDS015854 D1	<a href="https://ega-archive.org/datasets/EGAD00001003782">https://ega-archive.org/datasets/EGAD00001003782</a>	Not Available
SJAML074185 D1	SJ074185	SJAML074185 D1	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://permalinks.stjude.cloud/panaml">https://permalinks.stjude.cloud/panaml</a>
SJAML074163 D1	SJ074163	SJAML074163 D1	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://permalinks.stjude.cloud/panaml">https://permalinks.stjude.cloud/panaml</a>
SJAML074146 D1	SJ074146	SJAML074146 D1	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://permalinks.stjude.cloud/panaml">https://permalinks.stjude.cloud/panaml</a>
SJAML074143 D1	SJ074143	SJAML074143 D1	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://permalinks.stjude.cloud/panaml">https://permalinks.stjude.cloud/panaml</a>
SJAML074141 D1	SJ074141	SJAML074141 D1	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://permalinks.stjude.cloud/panaml">https://permalinks.stjude.cloud/panaml</a>
SJAML040278 D3	SJ040278	SJAML040278 D3	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://permalinks.stjude.cloud/panaml">https://permalinks.stjude.cloud/panaml</a>
SJAML032070 D1	SJ032070	SJAML032070 D1	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1007">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1007</a>
SJAML031106 D1	SJ031106	SJAML031106 D1	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1007">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1007</a>
SJAML031043 D1	SJ031043	SJAML031043 D1	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://permalinks.stjude.cloud/panaml">https://permalinks.stjude.cloud/panaml</a>
SJAML015364 D2	SJ015364	SJAML015364 D2	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://permalinks.stjude.cloud/panaml">https://permalinks.stjude.cloud/panaml</a>
SJAML010730 D2	SJ010730	SJAML010730 D2	<a href="https://ega-archive.org/studies/EGAS00001005760">https://ega-archive.org/studies/EGAS00001005760</a>	<a href="https://permalinks.stjude.cloud/panaml">https://permalinks.stjude.cloud/panaml</a>
SJAML065744 D1	SJ065744	PAXMPF	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065728 D1	SJ065728	PAXMAY	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065709 D1	SJ065709	PAXLEE	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065691 D1	SJ065691	PAXKEZ	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065594 D1	SJ065594	PAXEET	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065573 D1	SJ065573	PAXCWR	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065572 D1	SJ065572	PAXCVU	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065565 D1	SJ065565	PAXCFI	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065548 D1	SJ065548	PAXBDM	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065529 R1	SJ065529	PAWZVT	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065516 D1	SJ065516	PAWYVR	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065456 D1	SJ065456	PAWUNI	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065444 D1	SJ065444	PAWTTI	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065425 D1	SJ065425	PAWSTK	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065410 D1	SJ065410	PAWRSP	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065348 D1	SJ065348	PAWMEZ	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065319 D1	SJ065319	PAWKJC	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065276 D1	SJ065276	PAWHFW	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065255 D1	SJ065255	PAWFVC	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065246 D1	SJ065246	PAWEVC	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065218 D1	SJ065218	PAWDEG	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065191 D1	SJ065191	PAWBAS	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065169 D1	SJ065169	PAVZFT	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065150 D1	SJ065150	PAVXCU	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065085 D1	SJ065085	PAVSXW	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065072 D1	SJ065072	PAVRWU	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065047 D1	SJ065047	PAVNZB	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065037 D1	SJ065037	PAVNHD	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065028 D1	SJ065028	PAVMNK	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065027 D1	SJ065027	PAVMNA	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML065014 D1	SJ065014	PAVLSY	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML064988 D1	SJ064988	PAVJVS	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML064889 D1	SJ064889	PAVBVA	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML064873 D1	SJ064873	PAVANE	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML064831 D1	SJ064831	PAUXYG	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML064802 D1	SJ064802	PAUVEF	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML064774 D1	SJ064774	PAUSTZ	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML064768 D1	SJ064768	PAUSCS	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML064755 D1	SJ064755	PAURII	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML064708 D1	SJ064708	PAUIIB	<a href="https://portal.gdc.cancer.gov/projects/TARGET-AML">https://portal.gdc.cancer.gov/projects/TARGET-AML</a>	Not Available
SJAML063282 R1	SJ063282	SJAML063282 R1	<a href="https://ega-archive.org/datasets/EGAD00001008407">https://ega-archive.org/datasets/EGAD00001008407</a>	<a href="https://permalinks.stjude.cloud/permalinks/rpaml">https://permalinks.stjude.cloud/permalinks/rpaml</a>
SJAML061519 R1	SJ061519	SJAML061519 R1	<a href="https://ega-archive.org/datasets/EGAD00001008407">https://ega-archive.org/datasets/EGAD00001008407</a>	<a href="https://permalinks.stjude.cloud/permalinks/rpaml">https://permalinks.stjude.cloud/permalinks/rpaml</a>
SJAML061515 R1	SJ061515	SJAML061515 R1	<a href="https://ega-archive.org/datasets/EGAD00001008407">https://ega-archive.org/datasets/EGAD00001008407</a>	<a href="https://permalinks.stjude.cloud/permalinks/rpaml">https://permalinks.stjude.cloud/permalinks/rpaml</a>
SJAML061506 R1	SJ061506	SJAML061506 R1	<a href="https://ega-archive.org/datasets/EGAD00001008407">https://ega-archive.org/datasets/EGAD00001008407</a>	<a href="https://permalinks.stjude.cloud/permalinks/rpaml">https://permalinks.stjude.cloud/permalinks/rpaml</a>
SJAML061258 R1	SJ061258	SJAML061258 R1	<a href="https://ega-archive.org/datasets/EGAD00001008407">https://ega-archive.org/datasets/EGAD00001008407</a>	<a href="https://permalinks.stjude.cloud/permalinks/rpaml">https://permalinks.stjude.cloud/permalinks/rpaml</a>
SJAML030740 D1	SJ030740	SJAML030740 D1	<a href="https://ega-archive.org/datasets/EGAD00001008407">https://ega-archive.org/datasets/EGAD00001008407</a>	<a href="https://permalinks.stjude.cloud/permalinks/rpaml">https://permalinks.stjude.cloud/permalinks/rpaml</a>
SJAML015373 R2	SJ015373	SJAML015373 R2	<a href="https://ega-archive.org/datasets/EGAD00001008407">https://ega-archive.org/datasets/EGAD00001008407</a>	<a href="https://permalinks.stjude.cloud/permalinks/rpaml">https://permalinks.stjude.cloud/permalinks/rpaml</a>
SJAML015028 R1	SJ015028	SJAML015028 R1	<a href="https://ega-archive.org/datasets/EGAD00001008407">https://ega-archive.org/datasets/EGAD00001008407</a>	<a href="https://permalinks.stjude.cloud/permalinks/rpaml">https://permalinks.stjude.cloud/permalinks/rpaml</a>
SJAML050452 D1	SJ050452	SJAML050452 D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML046626 D1	SJ046626	SJAML046626 D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML046621 D1	SJ046621	SJAML046621 D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML046618 D1	SJ046618	SJAML046618 D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>



SJAML046606_D1	SJ046606	SJAML046606_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML046600_D1	SJ046600	SJAML046600_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML046592_D1	SJ046592	SJAML046592_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML044833_D1	SJ044833	SJAML044833_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML044829_D1	SJ044829	SJAML044829_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML044826_D1	SJ044826	SJAML044826_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML016586_D1	SJ016586	SJAML016586_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML016569_D1	SJ016569	SJAML016569_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML016566_D1	SJ016566	SJAML016566_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML016564_D1	SJ016564	SJAML016564_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML001428_D1	SJ001428	SJAML001428_D1	<a href="https://ega-archive.org/datasets/EGAD00001006444">https://ega-archive.org/datasets/EGAD00001006444</a>	<a href="https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013">https://platform.stjude.cloud/data/cohorts?dataset_accession=SJC-DS-1013</a>
SJAML030286_D1	SJ030286	SJAML030286_D1	<a href="https://permalinks.stjude.cloud/permalinks/g4k">https://permalinks.stjude.cloud/permalinks/g4k</a>	<a href="https://permalinks.stjude.cloud/permalinks/g4k">https://permalinks.stjude.cloud/permalinks/g4k</a>
SJAELO40151_D1	SJ040151	SJAELO40151_D1	<a href="https://ega-archive.org/datasets/EGAD00001003412">https://ega-archive.org/datasets/EGAD00001003412</a>	Not Available
SJAELO18170_D1	SJ018170	SJAELO18170_D1	<a href="https://ega-archive.org/datasets/EGAD00001003412">https://ega-archive.org/datasets/EGAD00001003412</a>	Not Available
SJAELO15026_R1	SJ015026	SJAELO15026_R1	<a href="https://ega-archive.org/datasets/EGAD00001003412">https://ega-archive.org/datasets/EGAD00001003412</a>	Not Available
SJAELO15022_D1	SJ015022	SJAELO15022_D1	<a href="https://ega-archive.org/datasets/EGAD00001003412">https://ega-archive.org/datasets/EGAD00001003412</a>	Not Available
SJAELO11880_D1	SJ011880	SJAELO11880_D1	<a href="https://ega-archive.org/datasets/EGAD00001003412">https://ega-archive.org/datasets/EGAD00001003412</a>	Not Available
SJAML040696_D1	SJ040696	PATKWH	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040691_D1	SJ040691	PATHIU	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040688_D1	SJ040688	PASYEJ	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040656_D1	SJ040656	PASWPD	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040635_D1	SJ040635	PASIEJ	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040627_D1	SJ040627	PASFEM	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040607_D1	SJ040607	PARUWX	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040589_D1	SJ040589	PARIHK	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040549_D1	SJ040549	PANSJB	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040541_D1	SJ040541	PANLLX	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040524_D1	SJ040524	PANDIX	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available
SJAML040500_D1	SJ040500	PADZCG	<a href="https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1">https://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000465.v7.p1</a>	Not Available

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