

Supplementary Information

Targeted Single Cell RNA and DNA Sequencing with Fluorescent Activated Droplet Merger

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Movie S3. Operation of the microfluidic device used in Figure 4.

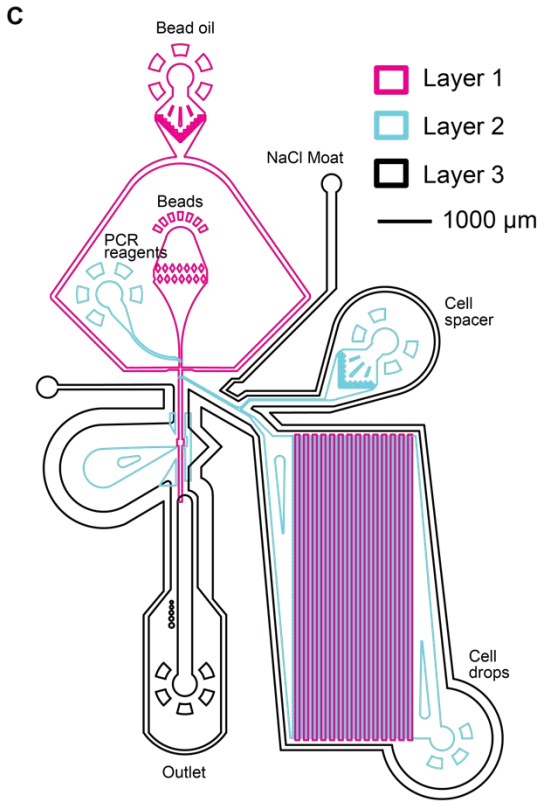
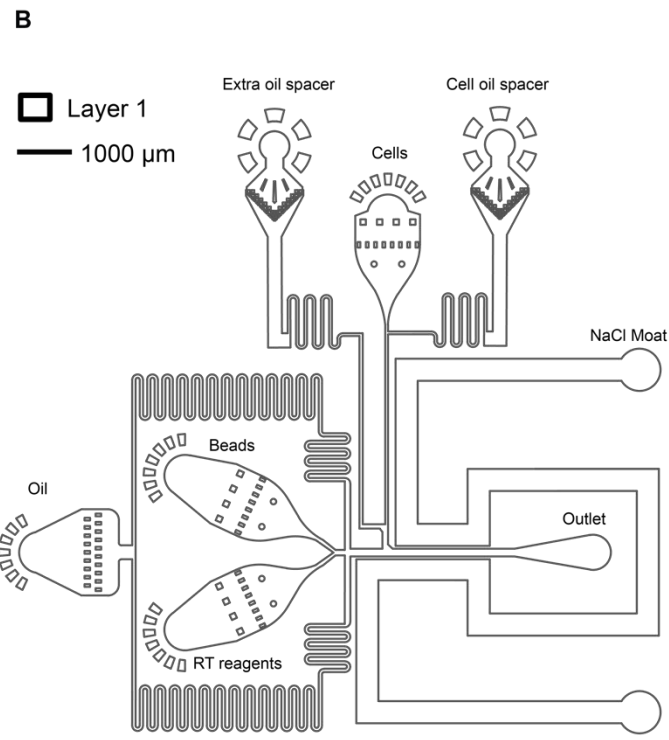
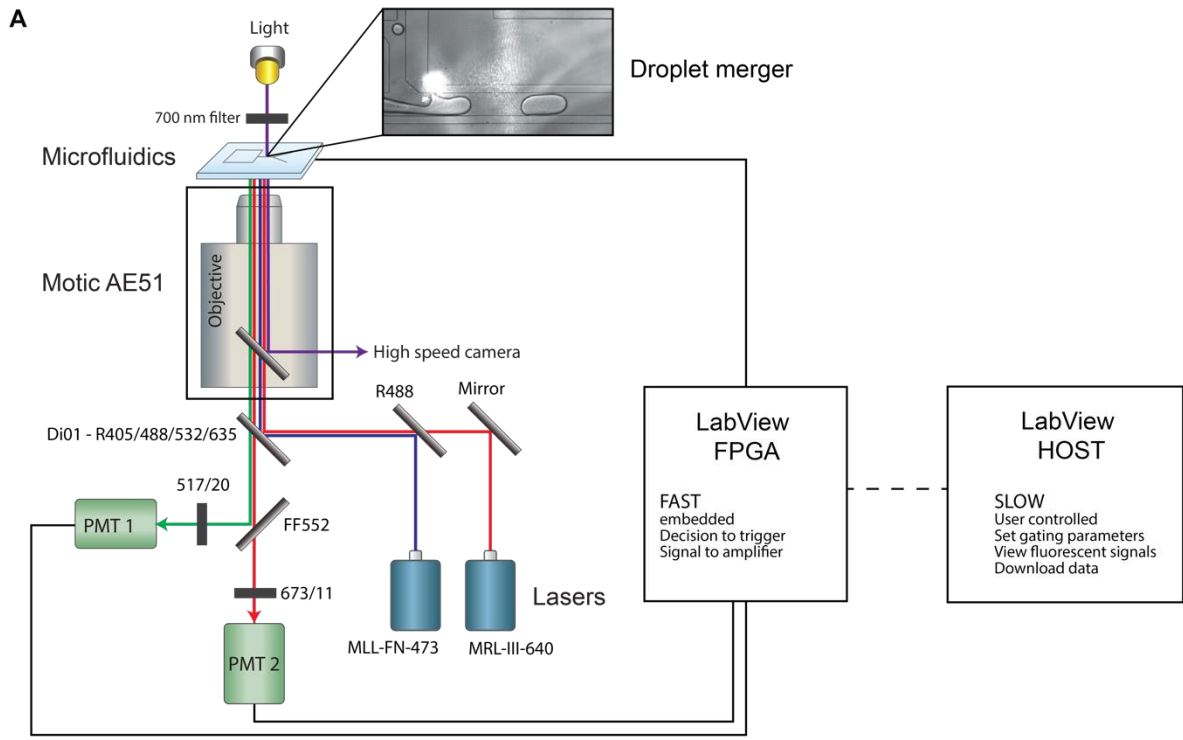


Figure S1. A) Overview of the optical setup used for selective merger. **B)** Design of the microfluidic device used for single cell RNA-seq. **C)** Design of the microfluidic device used for single cell DNA-seq.

Table S1: DNA-seq primers		
Bead primers	Location	Sequence
fw p1	p17 EZH2_1	/5Phos/ TTCGAG TGCAAATTCAGAATTTCAAACCTGCA*T*G*T
fw p2	p17 FLT3_1	/5Phos/ TTCGAG GCAGACTGCTGTGAGGGTT*T*T*T
fw p3	p17 FLT3_3	/5Phos/ TTCGAG GAGTGCTCAGTGTCTAATTC*A*C*T*T
fw p4	p17 KIT_1_s	/5Phos/ TTCGAG CTAAAATGTGTGATATCCCTAGACAGG*A*T*T
fw p5	p17 KRAS_1_s	/5Phos/ TTCGAG AAAGGTGAGTTTGTATTTAAAAGGTA*G*G*T
fw p6	p17 NPM1_1_2	/5Phos/ TTCGAG TTCTTGGAGTCATATCTTTATCTAG*A*G*T
fw p7	p17 TP53_1	/5Phos/ TTCGAG GGGTTATAGGGAGGTCAAATAA*G*C*A
fw p8	p17 TP53_2	/5Phos/ TTCGAG TGTGATGAGAGGTGGATGG*G*T*A
fw p9	p17 TP53_3_s	/5Phos/ TTCGAG TGCCGTCTTCCAGTTGCTT*T*A*T
fw p10	p17 WT1_3	/5Phos/ TTCGAG GCCTGGAAAAGGAGCTCTT*G*A*A
fw p11	p17 chr10_5554293	/5Phos/ TTCGAG CCCTAACCATCGTTCCTTC*A*G*G
fw p12	p17 chr16_55770629	/5Phos/ TTCGAG TCCAGTGCTCCCAGG*C*A*T
fw p13	p17 chr16_8569820	/5Phos/ TTCGAG ATTCATGACCACTCTATTTCTT*T*C*T
fw p14	p17 chr18_9750662	/5Phos/ TTCGAG CGGATTGGCCAGTGCA*T*T*C
fw p15	p17 chr6_17076840	/5Phos/ TTCGAG TGAACCTAGGAGGCTGA*G*G*T
fw p16	p17 chr6_62094287	/5Phos/ TTCGAG GTTAGCCATTCTCTCTAGT*G*C*C
splint p17		CTCGAA TAGG
Solution primers	Location	Sequence
rev p18	EZH2_1	CATTTTAATGCACCCACTATCTTCAGC
rev p19	FLT3_1	CTCTGGTGTGTCATTCTTGACAGTGT
rev p20	FLT3_3	ACAGAAAAAGCAGACAGCTCTGAAA
rev p21	KIT_1_s	AAATGGTTTTCTTTCTCCTCCAACCTA
rev p22	KRAS_1_s	AAAGAATGGTCCTGCACCAAGTAA
rev p23	NPM1_1_2	TCTGCATTATAAAAAGGACAGCC
rev p24	TP53_1	GGCCTCTGATTCTCCTCACTGATTG
rev p25	TP53_2	CCTCATCTTGGGCCTGTGTTAT
rev p26	TP53_3_s	CTGCTCACCATCGCTATCTGAG
rev p27	WT1_3	TCAAGACCTACGTGAATGTTACATG
rev p28	chr10_5554293	GGAAACGGGGTGTGCGAA
rev p29	chr16_55770629	GTGGTGAGGAGATCAGGAGGAT
rev p30	chr16_8569820	CATGGACATGGCCTGCAC
rev p31	chr18_9750662	TCAGATGAACCAAAGGAAGTATGT
rev p32	chr6_17076840	AGATTCTGGTACATTGTGTCTTTATTCT
rev p33	chr6_62094287	TCTGCAACTCTACTGATAGTGAT
5' handle		GTCTCGTGGGCTCGGAGATGTGTATAAGAGACAG

Table S2: Polymorphisms used for cell identification
EZH2:chr7:148504716:AG/A
NPM1:chr5:170837457:A/G
TP53:chr17:7578115:T/C
RBFOX1-TMEM114:chr16:8569722:T/C
LOC101928433-STMND1:chr6:17076799:TAA/T
LOC101928433-STMND1:chr6:17076799:TA/T
FLT3:chr13:28602226:AAGAG/A
chr13:28602229:AGAGAGAG/*
TP53:chr17:7577427:G/A
TP53:chr17:7577407:A/C
chr13:28602227:AGAG/*
chr7:148504717:G/*
chr6:17076801:A/*
LOC101928433-STMND1:chr6:17076801:A/G
TP53:chr17:7578523:T/TG
TP53:chr17:7578523:T/G