

Tebas et al Fig S1

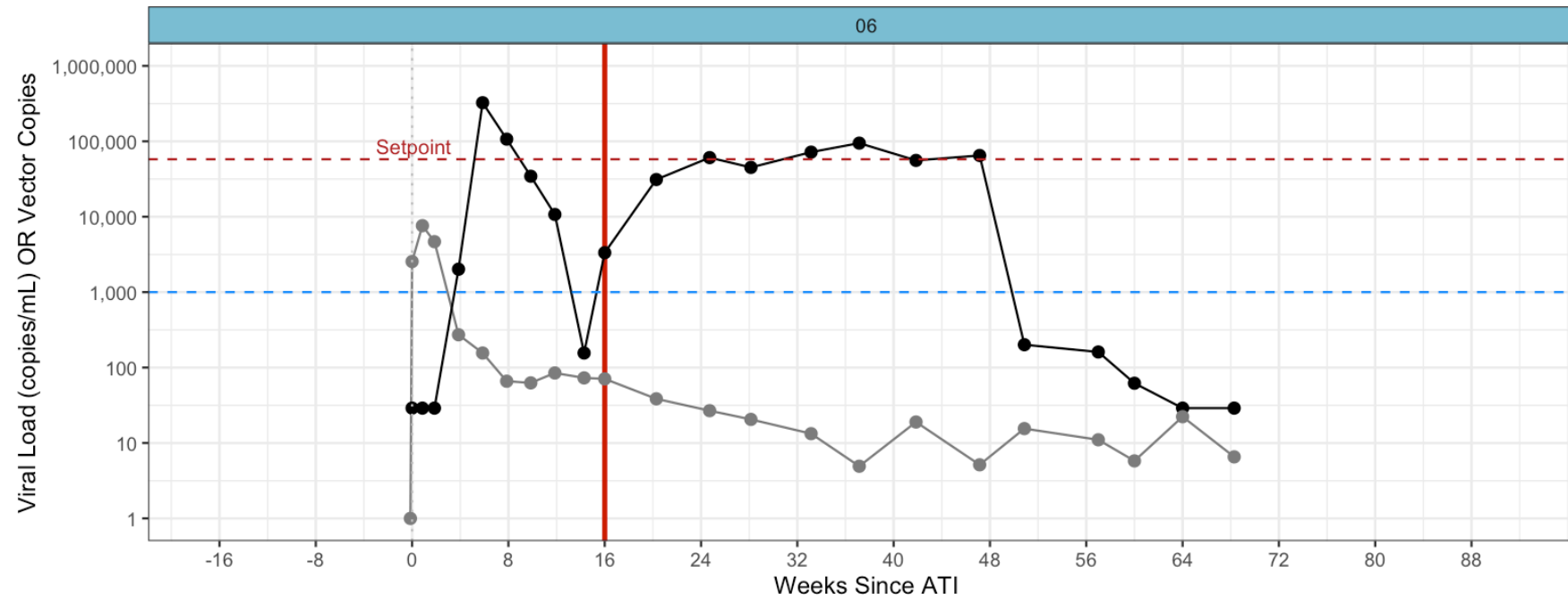


Fig S2: Extended viral load and vector copy presence for participant 06. A) Viral load (black line) and vector copies per million PBMCs (grey line) are shown. Red line indicates when the ATI should have ended. ART was resumed 48 weeks after start of ATI.

Table S1. Participant baseline characteristics and CART product characteristics

Participant ID	Age, y	CCR5	Race	Ethnicity	Cohort	HIV dx date	CD4 nadir	Enrollment date	CD4 at enrollment	ART at entry	Total cell dose administered	CAR T-cell dose administered	CD4 CAR expression, %	CD4 CAR copy number, average copies/cell
CD4CAR-ZFN-01	21	Δ32/wt	African American	Non-Hispanic	Cohort 2	03/06/2015	710	08/23/2019	681	TAF/FTC/BIC	6.2 x 10 ⁹	2.15 x 10 ⁹	34.6	1.79
CD4CAR-ZFN-02	58	Δ32/w	Caucasian	Non-Hispanic	Cohort 2	08/15/2009	797	09/05/2019	1785	TAF/FTC/BIC	1.00 x 10 ¹⁰	1.60 x 10 ⁹	16	0.88
CD4CAR-ZFN-03	47	wt/wt	African American	Non-Hispanic	Cohort 1	08/15/2011	456	02/17/2020	1430	ABC/3TC/DTG	3.70 x 10 ⁹	1.76 x 10 ⁹	47.7	1.04
CD4CAR-ZFN-04	58	wt/wt	African American	Non-Hispanic	Screen failure	1996	NA	01/31/2020	394	NA	NA	NA	NA	NA
CD4CAR-ZFN-05	56	wt/wt	African American	Non-Hispanic	Cohort 2	05/20/2010	435	07/17/2020	780	TAF/FTC/EVG/c	5.8 x 10 ⁹	2.15 x 10 ⁹	53.6	0.97
CD4CAR-ZFN-06	38	wt/wt	African American	Non-Hispanic	Cohort 1	03/15/2012	470	08/18/2020	559	TAF/FTC/EVG/c	8.00 x 10 ⁹	1.93 x 10 ⁹	63.4	0.83
CD4CAR-ZFN-07	57	wt/wt	Caucasian	Non-Hispanic	Cohort 1	08/07/2017	333	02/09/2021	677	TAF/FTC/EVG/c	1.80 x 10 ⁹	1.13 x 10 ⁹	26.6	0.91
CD4CAR-ZFN-08	41	Δ32/w	African American	Non-Hispanic	Cohort 2	09/15/2010	412	02/26/2021	740	TAF/FTC/BIC	5.00 x 10 ⁹	2.14 x 10 ⁹	50.1	0.78
CD4CAR-ZFN-09	33	wt/wt	Caucasian	Non-Hispanic	Screen failure	08/15/2012	NA	NA	NA	NA	NA	NA	NA	NA
CD4CAR-ZFN-10	38	wt/wt	African American	Non-Hispanic	Cohort 2	12/10/2014	700	07/02/2021	833	TAF/FTC/DRV/c	9.95 x 10 ⁹	1.97 x 10 ⁹	46.6	0.68
CD4CAR-ZFN-11	65	wt/wt	Caucasian	Non-Hispanic	Cohort 1	07/15/1991	350	07/07/2021	977	TAF/FTC/BIC	2.75 x 10 ⁹	2.18 x 10 ⁹	13.7	0.16
CD4CAR-ZFN-12	50	wt/wt	Caucasian	Hispanic	Cohort 2	03/13/2003	369	09/21/2021	659	TAF/FTC/EVG/c	1.00 x 10 ¹⁰	3.85 x 10 ⁹	47.8	0.63

Abbreviations: ABC, abacavir; ART, antiretroviral therapy; BIC, bictegravir; CAR, chimeric antigen receptor; c, cobicistat; DRV, darunavir; DTG, dolutegravir; dx, diagnosis; EVG, elvitegravir; FTC, emtricitabine; NA, not available or not applicable; TAF, tenofovir alafenamide; 3TC, lamivudine.

Supplemental Table 2: All Adverse Events

Category Toxicity	Grades					Total
	1	2	3	4	5	
Blood and lymphatic system disorders	3	0	0	0	0	3
<i>Blood and lymphatic system disorders - Other (Adenopathy)</i>	2	0	0	0	0	2
<i>Cervical Adenopathy</i>	1	0	0	0	0	1
Eye disorders	0	1	0	0	0	1
<i>Conjunctivitis</i>	0	1	0	0	0	1
Gastrointestinal disorders	7	0	0	0	0	7
<i>Anal condyloma</i>	1	0	0	0	0	1
<i>Diarrhea</i>	1	0	0	0	0	1
<i>Dysgeusia</i>	5	0	0	0	0	5
General disorders and administration site conditions	4	1	0	0	0	5
<i>Chills</i>	1	0	0	0	0	1
<i>Fatigue</i>	2	0	0	0	0	2
<i>General disorders and administration site conditions - Other (Nodule)</i>	1	0	0	0	0	1
<i>Flu like symptoms</i>	0	1	0	0	0	1
Infections and infestations	0	4	0	0	0	4
<i>Chlamydia</i>	0	1	0	0	0	1
<i>Gonorrhea</i>	0	1	0	0	0	1
<i>Infections and infestations - Other (COVID-19)</i>	0	2	0	0	0	2
Injury, poisoning and procedural complications	3	0	0	0	0	3
<i>Vaccination complication</i>	3	0	0	0	0	3
Nervous system disorders	1	1	0	0	0	2
<i>Dizziness</i>	1	0	0	0	0	1
<i>Paresthesia</i>	0	1	0	0	0	1
Renal and urinary disorders	0	1	0	0	0	1
<i>Urinary tract infection</i>	0	1	0	0	0	1
Respiratory, thoracic and mediastinal disorders	2	0	0	0	0	2
<i>Cold</i>	1	0	0	0	0	1
<i>Sore throat</i>	1	0	0	0	0	1
Skin and subcutaneous tissue disorders	1	1	0	0	0	2
<i>Skin and subcutaneous tissue disorders - Other (Rash)</i>	0	1	0	0	0	1
<i>Skin and subcutaneous tissue disorders - Other (Skin lesion)</i>	1	0	0	0	0	1
Total	21	9	0	0	0	30

Supplemental Table 3: All Related Adverse Events

Category Toxicity	Grades					Total
	1	2	3	4	5	
Gastrointestinal disorders	3	0	0	0	0	3
<i>Dysgeusia</i>	3	0	0	0	0	3
General disorders and administration site conditions	1	0	0	0	0	1
<i>Chills</i>	1	0	0	0	0	1
Total	4	0	0	0	0	4

Data Information (To Be Completed by Agency Representative - System Generated Field)													Data Information (To Be Completed by CPAC User)							
Sample ID*	Analyte Requested*	Specimen*	Matrix*	Tier Level*	Clinical ART Medication #1 (With Frequency Prescribed)*	Clinical ART Medication #2 (With Frequency Prescribed)*	Clinical ART Medication #3 (With Frequency Prescribed)*	Time Elapsed Since Last Date of Clinical ART Medication #1*	Time Elapsed Since Last Date of Clinical ART Medication #2*	Time Elapsed Since Last Date of Clinical ART Medication #3*	Weight of Person (kg)	Units of Time Elapsed*	Date of Sample Collection (MM/DD/YYYY - Y)	Comment	CPAC Sample ID	Run ID	EVG Concentration (ng/mL)	Run ID	TFV Concentration (ng/mL)	FTC Concentration (ng/mL)
201908100004	TFV, FTC, EVG	Plasma	Blood serum	Tier 2	Generic (EVG)COBI (F) (A) (Q)			21 (D)			70.000	Days	10/24/21	Baseline	01	1	100	2	11.2	100
20191010111	TFV, FTC, EVG	Plasma	Blood serum	Tier 2	Generic (EVG)COBI (F) (A) (Q)			25 (D)			70.000	Days	10/19/21	4 weeks into AT	02	1	80	2	80	80
20191010110	TFV, FTC, EVG	Plasma	Blood serum	Tier 2	Generic (EVG)COBI (F) (A) (Q)			25 (D)			70.000	Days	10/19/21	4 weeks into AT	03	1	80	2	80	80
20191010117	TFV, FTC, EVG	Plasma	Blood serum	Tier 2	Generic (EVG)COBI (F) (A) (Q)			21 (D)			70.000	Days	10/17/21	2 weeks into AT	04	1	80	2	80	80

Dynamic range of assay: TFV/FTC (0.00-10,000ng/mL), EVG(0.0-10,000ng/mL)

Participant ID	Time point	Viral sequence intactness	Integration Site	Gene	Reference human genome
CD4CAR-ZFN-02	step2	Intact	chr22:1384692	nongenic, satellite	T2T
CD4CAR-ZFN-02	step2	Intact	chr19:20547360	ZNF737	GRCh38
CD4CAR-ZFN-03	step2	Intact	chr19:37436140	ZNF569	GRCh38
CD4CAR-ZFN-05	step2	Intact	chr12:3897134	PARP11-AS1	GRCh38
CDCAR-ZFN-05	step2	Intact	chr1:134854422	Pericentromeric satellite	T2T
CDCAR-ZFN-05	step2	Intact	chr19:29033560	centromeric satellite	T2T
CD4CAR-ZFN-06	step2	Intact	chr19:7644678	STXBP2	GRCh38
CD4CAR-ZFN-08	step2	Intact	chr1:143213236	nongenic	GRCh38
CD4CAR-ZFN-08	step2	Intact	chr1:132570273	Pericentromeric Satellite	T2T
CD4CAR-ZFN-02	step5	Intact	chr2:112103799	TMEM87B	GRCh38
CD4CAR-ZFN-02	step5	Intact	chr17:77344741	SEPTIN9	GRCh38
CD4CAR-ZFN-02	step5	Intact	chr19:36549391	ZNF529	GRCh38
CD4CAR-ZFN-02	step5	Intact	chr19:56420178	ZNF583	GRCh38
CD4CAR-ZFN-03	step5	Intact	chr3:52942390	SFMBT1	GRCh38
CD4CAR-ZFN-03	step5	Intact	chr10:101687623	FBXW4	GRCh38
CD4CAR-ZFN-03	step5	Intact	chr12:54973869	TESPA1	GRCh38
CD4CAR-ZFN-05	step5	Intact	chr6:90021181	BACH2	GRCh38
CD4CAR-ZFN-06	step5	Intact	chr16:19546275	CCP110	GRCh38
CD4CAR-ZFN-06	step5	Intact	chr4:122211700	KIAA1109	GRCh38
CD4CAR-ZFN-10	step5	Intact	chr19:56420968	ZNF583	GRCh38
CD4CAR-ZFN-02	step2	hypermot	chr16:24966614	ARHGAP17	GRCh38
CD4CAR-ZFN-02	step5	5' defect	chr1:243287849	SDCCAG8	GRCh38
CD4CAR-ZFN-02	step5	Premature Stop Codon	chrY:34566782	LOC124908590	T2T
CD4CAR-ZFN-02	step5	Premature Stop Codon	chr3:194985968	nongenic	GRCh38
CD4CAR-ZFN-03	step2	hypermot	chr17:75806342	UNK	GRCh38
CD4CAR-ZFN-06	step2	5' defect	chr16:56996050	NLRC5	GRCh38
CD4CAR-ZFN-06	step5	5' defect	chr12:56177138	SMARCC2	GRCh38
CD4CAR-ZFN-06	step5	5' defect	chr3:156461730	KCNAB1	GRCh38
CD4CAR-ZFN-08	step2	5' defect	chr9:136932606	nongenic	GRCh38
CD4CAR-ZFN-08	step2	Premature Stop Codon	chr10:118307539	FAM204A	GRCh38
CD4CAR-ZFN-08	step2	5' defect	chr2:102408968	nongenic	GRCh38
CD4CAR-ZFN-10	step5	hypermot	chr17:7504310	POLR2A	GRCh38

Supplemental Table 5: Summary of integration sites for indicated proviruses.