TSC-100 and TSC-101 Demonstrate the Potential to Reduce Relapse Rates and Increase Relapse-free Survival in Patients with AML, ALL, or MDS Undergoing Allogeneic HCT with Reduced Intensity Conditioning (RIC): Preliminary Results from the Phase 1 ALLOHA Trial

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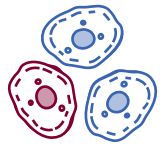
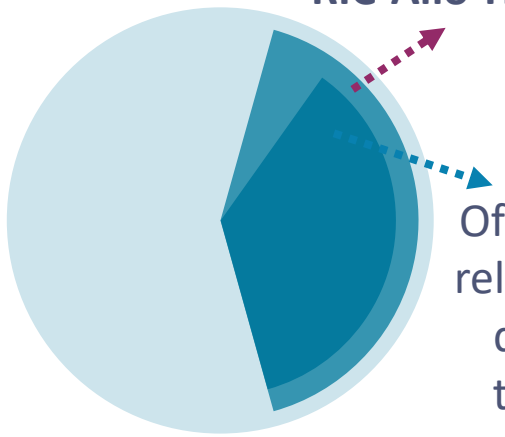
Relapse after hematopoietic cell transplant remains an unmet need

- Allogeneic hematopoietic cell transplantation (HCT) can cure some patients with AML, ALL or MDS
- Advances in reduced intensity conditioning (RIC-HCT) regimens as well as GvHD prophylaxis with post-transplant cyclophosphamide (PTCy) have expanded patient access to HCT by markedly improving treatment-related morbidity and mortality
- However, **relapse remains the leading cause of death post-HCT** and is therefore a significant unmet medical need
- TSC-100 and TSC-101 are donor-derived engineered TCR-T cells designed to selectively eliminate any residual patient-derived hematopoietic cells after HCT by targeting the haematopoietically-restricted antigens HA-1 and HA-2, respectively
- The ALLOHA Study (TSCAN-001, NCT05473910) is a Phase 1, multi-center, biologically controlled study evaluating TSC-100 in HA-1 and TSC-101 in HA-2 positive adult patients with AML, ALL, or MDS undergoing RIC-HCT



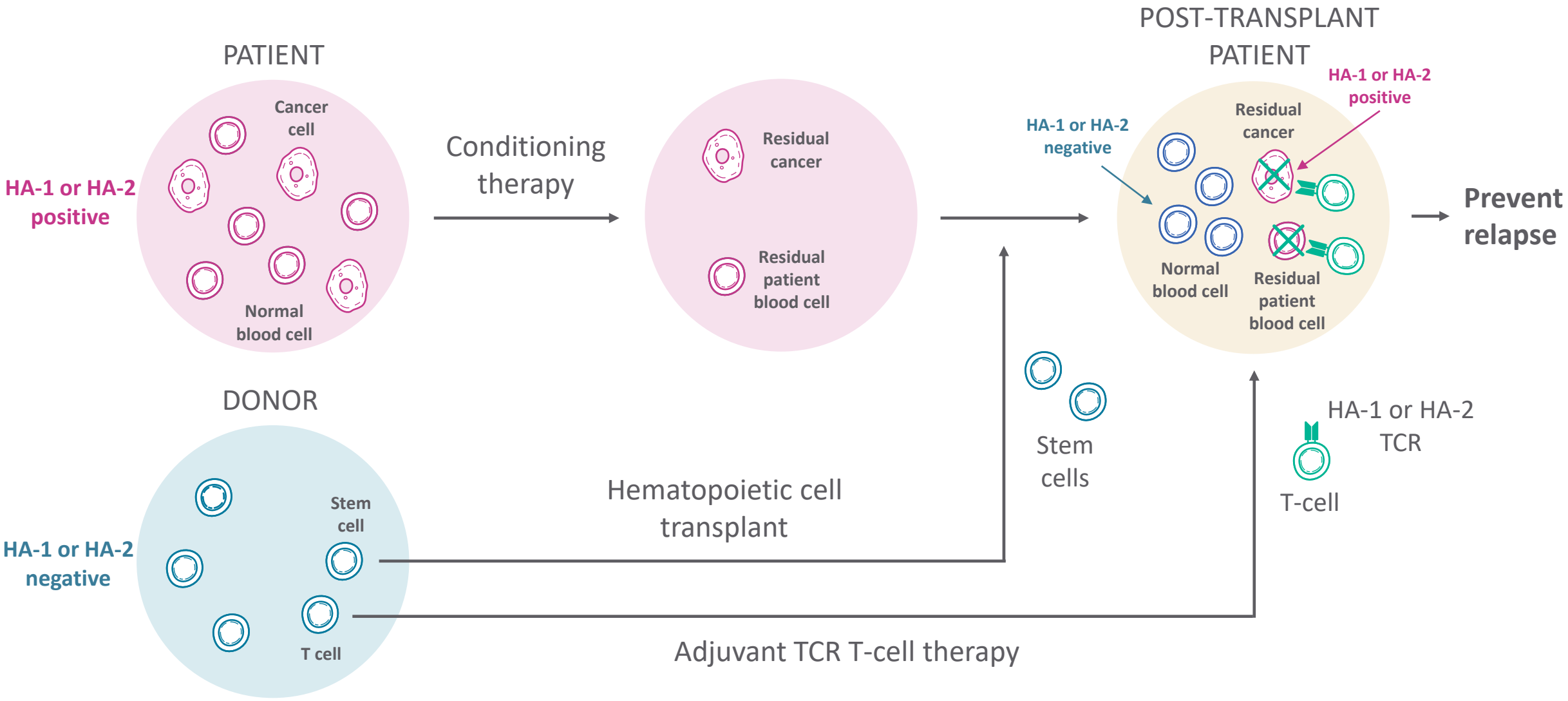
38-44% of patients relapse within two years following RIC-Allo-HCT[1]



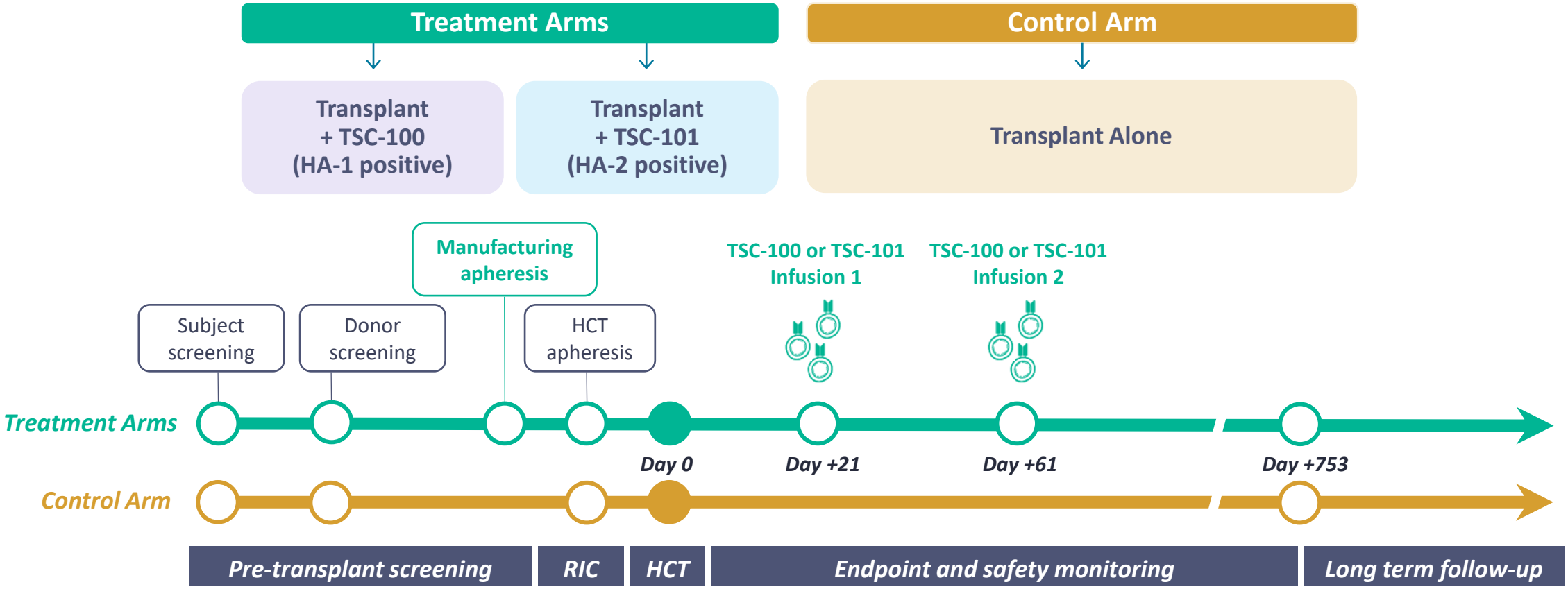
Of those who relapse, **>80%** die within two years[2]

1. CIBMTR analysis of AML, ALL, MDS allogeneic transplants with reduced intensity conditioning (RIC) between 2017-2019 with 2-year follow-up
2. Schmid, Blood 2012, Spyridonidis, Leukemia 2012, Schmid, Haematologica 2018

TSC-100 and TSC-101 are adjuvant engineered TCR-T cells designed to eliminate residual recipient cells and prevent relapse following HCT



Multi-arm Phase 1 trial for TSC-100 & TSC-101 in subjects with AML, ALL, and MDS



Key eligibility criteria

- Age ≥18 years
- Undergoing first allo-HCT for ALL, AML, MDS
- Subject positive for HA-1 (or HA-2) with a haploidentical HA-1 (or HA-2) negative donor
- Eligible for RIC-HCT followed by PTCy for GvHD prophylaxis

Key endpoints

- Safety: Dose limiting toxicities, adverse events
- Efficacy
- Exploratory endpoints: Donor chimerism, minimal residual disease

ALL, acute lymphoblastic leukemia; AML, acute myeloid leukemia; MDS, myelodysplastic syndromes; GvHD, graft vs host disease; RIC-HCT, reduced intensity conditioning hematopoietic cell transplantation

Majority of subjects in the treatment and control arms are at high risk for relapse

		TSC-100	TSC-101	Any TSC	Control
Subjects Enrolled and assigned		14	12	26	13
Subjects Transplanted (efficacy data cohort)		14	12	26	12
Subjects Infused (safety data cohort)		10	12	22	N/A*
Median Time of Follow Up, months		4.0 (0-19)	6.4 (1-21)	5.1 (0-21)	7.1 (1-25)
Age, Median (Range)		69 (39-76)	66 (52-74)	67 (39-76)	66 (23-74)
Sex, Male (n, %)		10 (71%)	7 (58%)	17 (65%)	6 (46%)
Underlying Disease	ALL	2 (14%)	2 (17%)	4 (15%)	0 (0%)
	AML	10 (71%)	7 (58%)	17 (65%)	8 (62%)
	MDS	2 (14%)	3 (25%)	5 (19%)	5 (38%)
Genetics/ cytogenetics	**TP53 mutated**	**4 (29%)**	**2 (17%)**	**6 (23%)**	**2 (15%)**
	FLT3 mutation	2 (14%)	0 (0%)	2 (8%)	5 (38%)
	Adverse Risk**	11 (79%)	10 (83%)	21 (81%)	8 (62%)
Pre-HCT MRD positive* **		8 (57%)	5 (42%)	13 (50%)	7 (54%)
MRD positive or adverse risk genetics		**11 (79%)**	**10 (83%)**	**21 (81%)**	**10 (77%)**

*Control subjects that received transplant are included in the safety data cohort

**Adverse risk is defined as having either a IPSS-M mutation if the subject has MDS or European Leukemia Network (ELN) high risk genetics or cytogenetics for AML; ELN 2022 high risk genetics/ cytogenetics include mutated ASXL1, BCOR, EZH2, RUNX1, SF3B1, SRSF2, STAG2, U2AF1, ZRSR2, TP53, -5/ del(5q)/, -7,-17/ abn(17p), t(6;9), t(v;11q23.3), t(9;22), t(8;16), inv(3) or t(3;3), t(3q26.2;v), monosomal or complex karyotype (for AML); IPSS-M mutations are reported in Bernard et al, NEJM Evid, 2022 (for MDS)

***MRD measured by flow cytometry (lower limit of detection 0.1-1%) or NGS (lower limit of detection 0.05-0.1% in myeloid and 0.001-0.01% in lymphoid malignancies).

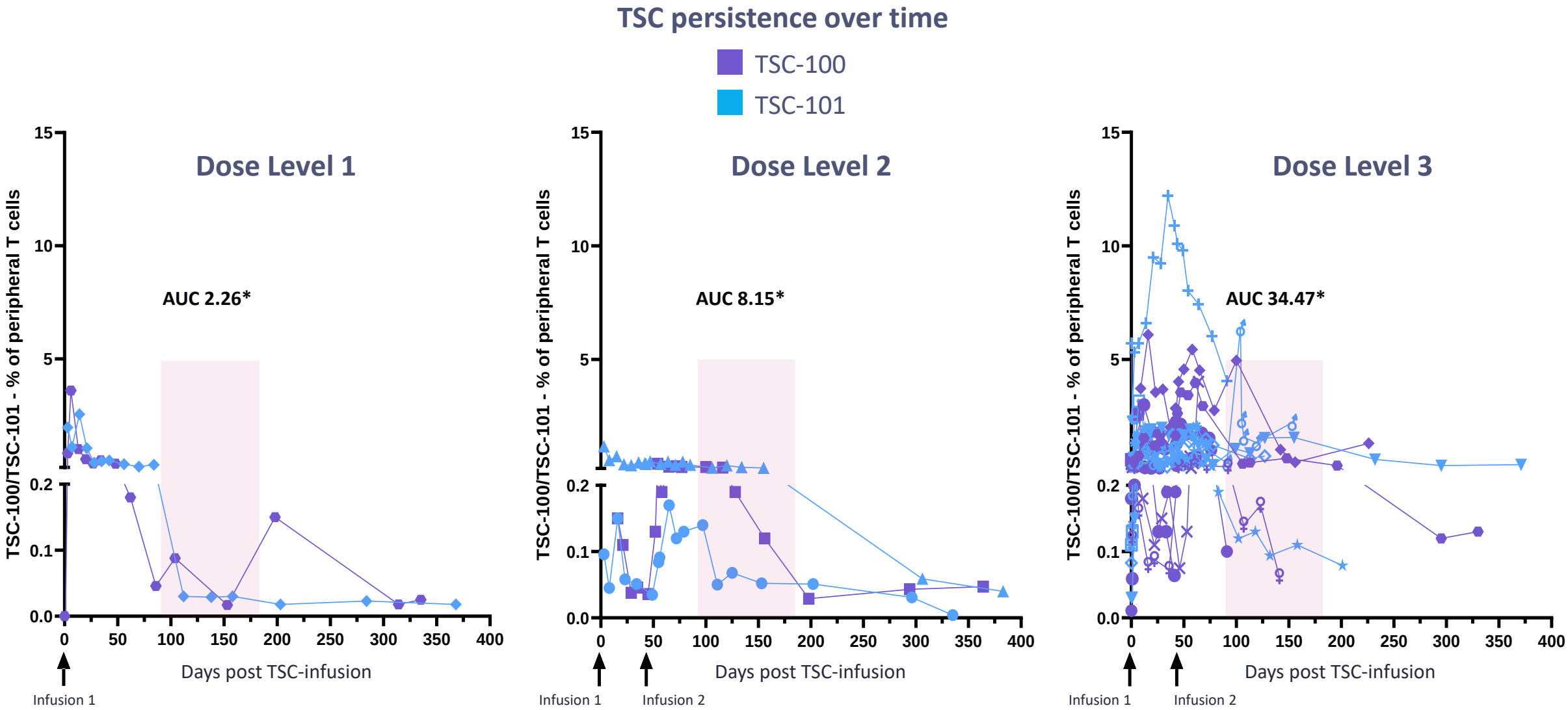
As of Nov 20, 2024 data cut

Subjects treated at all three dose levels with no dose-limiting toxicities

Dose Level	Planned Day of Infusion Post HCT		TSC 100 N=10	TSC 101 N=12
	+21	+61		
DL1	5×10^6 TCR-T cells/kg	N/A	1	1
DL2	5×10^6 TCR-T cells/kg	5×10^6 TCR-T cells/kg	1	2
DL3	5×10^6 TCR-T cells/kg	20×10^6 TCR-T cells/kg	8	9

As of Nov 20, 2024 data cut

TSC-100 and TSC-101 TCR-T cells detected for > 1-year with increased persistence seen at highest dose level (DL3)



*AUC of TSC-100/TSC-101 between Day 90-180 (Geometric mean(geometric CV)): DL1: 2.26(47.2%); DL2 and sDL2: 8.15(42.2%); DL3 and sDL3: 34.47(97.7%). Dose did not meet target dose criteria in supplemental cohorts (sDL)

As of Nov 20, 2024 data cut

Adverse events of special interest were low grade and manageable

Adverse Event of Special Interest*	TSC-100 n=10	TSC-101 n=12	Any TSC n=22	Control n=12
Any Acute GvHD**	5 (50%)	6 (50%)	11 (50%)	4 (33%)
Grade II - IV	0 (0%)	2 (17%)	2 (9%)	3 (25%)
Grade III - IV	0 (0%)	1 (8%)	1 (5%)	2 (17%)
Any CRS	4 (40%)	8 (67%)	12 (57%)	6 (50%)
Grade 1 - 2	4 (40%)	8 (67%)	12 (57%)	6 (50%)
Grade 3 - 4	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Treatment-emergent CRS	1 (10%)	1 (8%)	2 (9%)	NA
Grade 1 - 2	1 (10%)	1 (8%)	2 (9%)	NA
Grade 3 - 4	0 (0%)	0 (0%)	0 (0%)	NA
Any ICANS	0 (0%)	0 (0%)	0 (0%)	0 (0%)

- Balanced Grade II – IV acute GvHD between treatment and control arms
- No cases of moderate or severe chronic GvHD
  - One case each of mild chronic GvHD in the treatment and control arms
- Two episodes of low-grade CRS reported post TSC infusions
  - One Grade 1 event (TSC-100) and one Grade 2 event (TSC-101)
- No cases of ICANS

*MAGIC grading used for acute GvHD, NIH consensus grading for chronic GvHD, and ASTCT grading used for CRS or ICANS
**Acute GvHD through 180 days post HCT

As of Nov 20, 2024 data cut

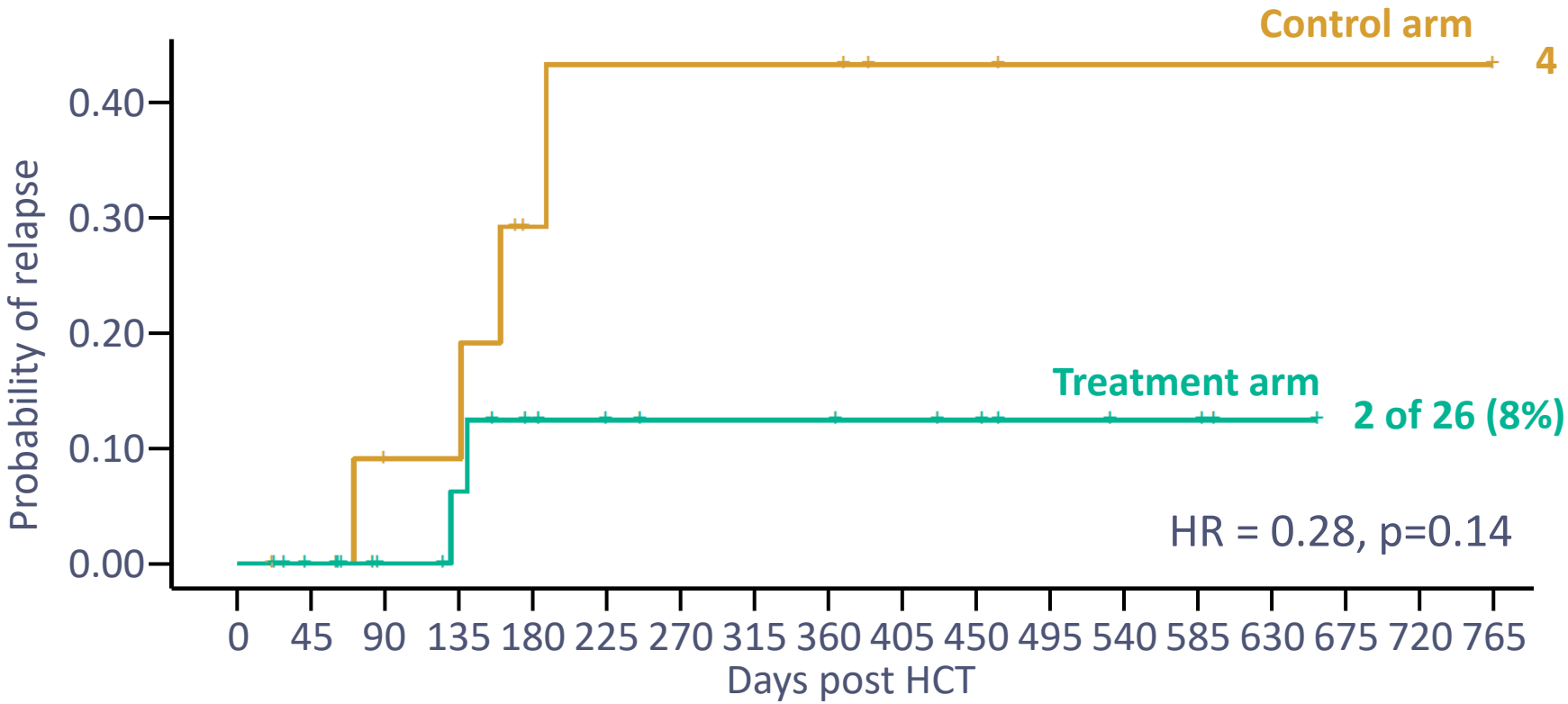
Grade ≥3 treatment emergent adverse events are consistent with transplantation

Events in >5% of subjects	Any TSC n=22	Control n=12
Anemia	7 (31.8)	2 (16.7)
Platelet count decreased	4 (18.2)	3 (25.0)
Neutrophil count decreased	3 (13.6)	1 (8.3)
Pneumonia	3 (13.6)	1 (8.3)
Sepsis	3 (13.6)	0
Decreased appetite	2 (9.1)	0
Rash maculo-papular	2 (9.1)	0
Hypertension	1 (4.5)	1 (8.3)
Hypokalemia	1 (4.5)	1 (8.3)
Hypoxia	1 (4.5)	1 (8.3)
Pancytopenia	1 (4.5)	1 (8.3)
Acute graft vs host disease*	1 (4.5)	2 (16.7)
Neck pain	0	2 (16.7)
Alanine aminotransferase increased	0	1 (8.3)
Aspartate aminotransferase increased	0	1 (8.3)
Gamma-glutamyltransferase increased	0	1 (8.3)
Muscular weakness	0	1 (8.3)
Pneumonia respiratory syncytial viral	0	1 (8.3)

*Acute graft vs host disease (GvHD) includes one patient with events of acute GvHD, acute GvHD in skin, GvHD in skin and one with GvHD of the GI tract

As of Nov 20, 2024 data cut

TCR-T infusion is associated with fewer relapses



Number at risk

Control arm	12	11	9	9	5	4	4	4	4	2	2	1	1	1	1	1	1	1
Treatment arm	26	23	17	15	12	10	8	8	8	7	6	4	3	3	1	0	0	0

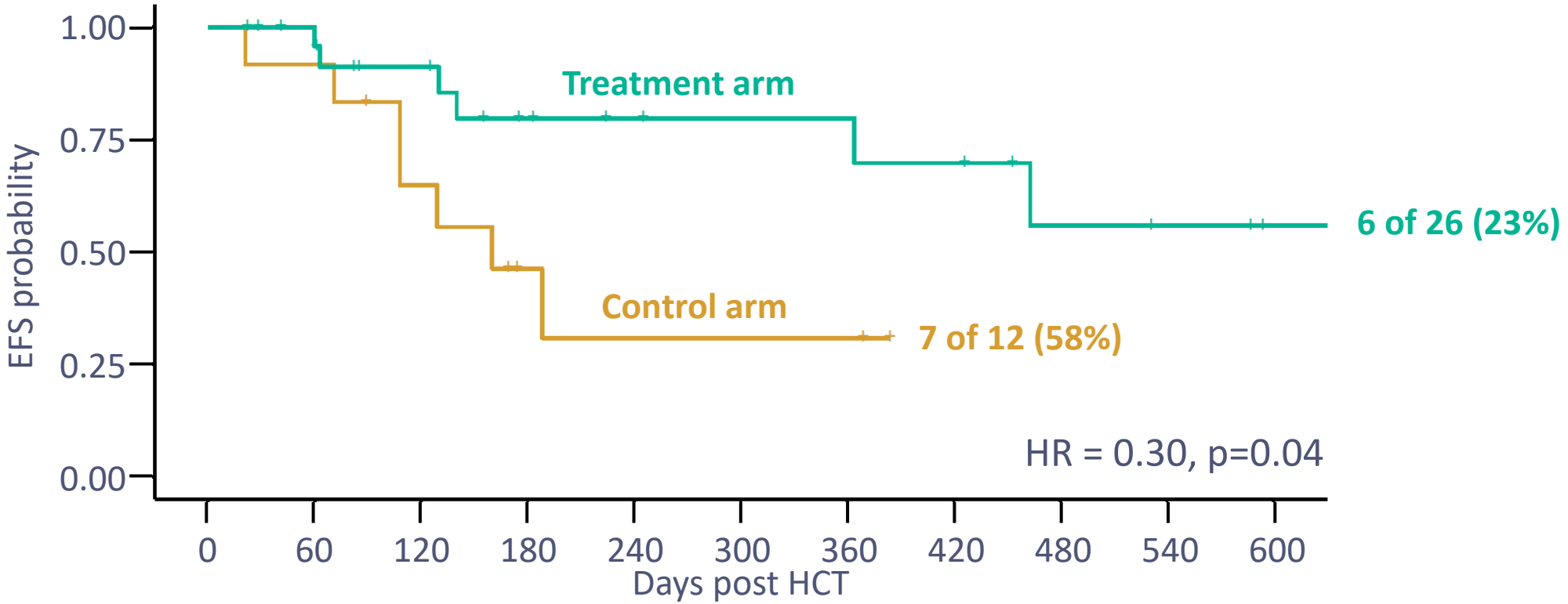
Cumulative number of events

Control arm	0	0	1	1	3	4	4	4	4	4	4	4	4	4	4	4	4	4
Treatment arm	0	0	0	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2

CoxPH Ratio = 0.275, CI = (0.05, 1.502), p = 0.136; Log−rank p = 0.1105

Updated to include 2 events in the treatment arm reported after the Nov 20, 2024 data cut

Event-free survival (EFS) favors the treatment arm



Number at risk

Control arm	12	11	7	3	2	2	2	0	0	0	0
Treatment arm	26	23	17	12	10	8	8	7	4	3	1

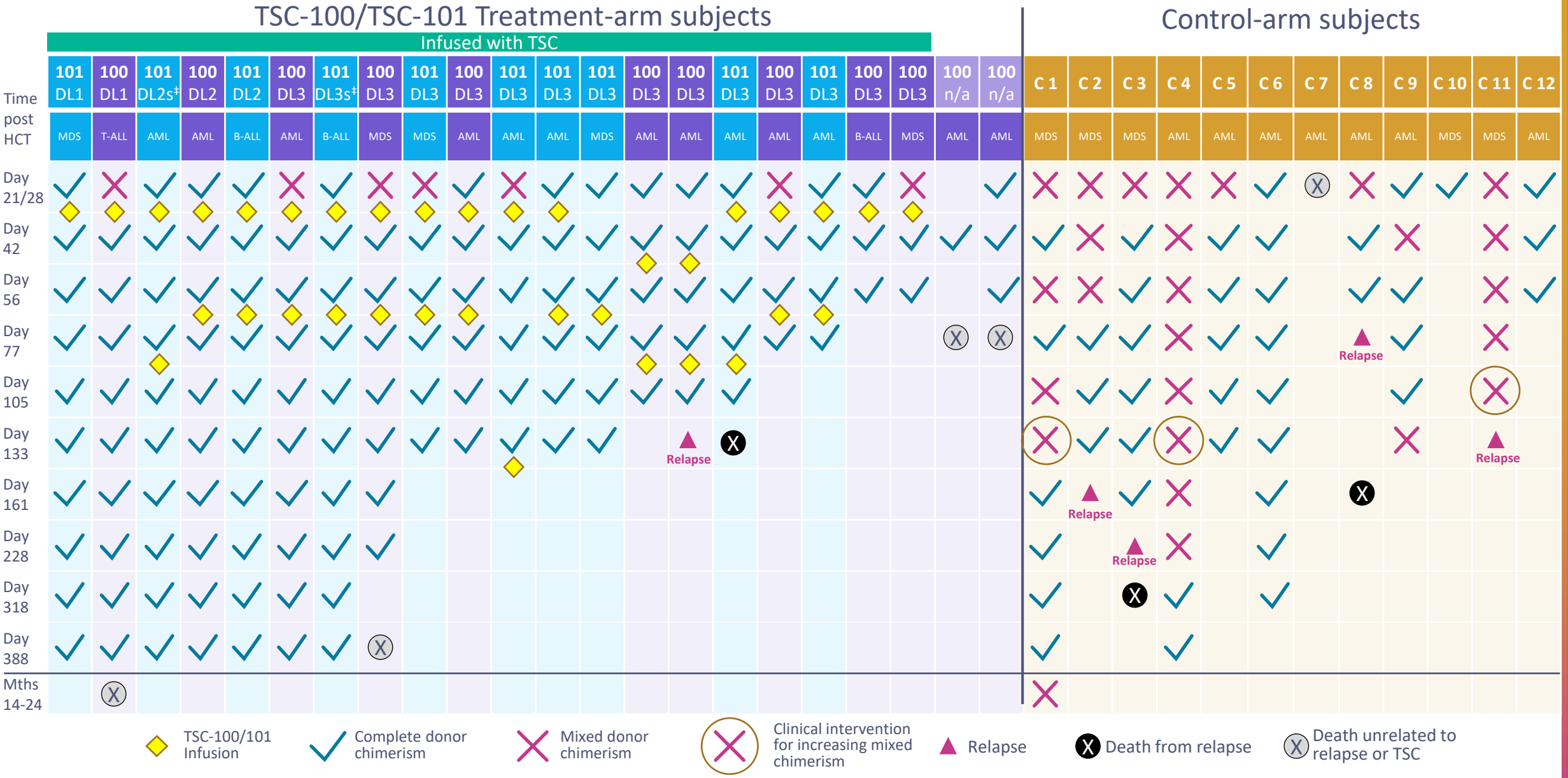
Cumulative number of events

Control arm	0	1	4	6	7	7	7	7	7	7	7
Treatment arm	0	1	2	4	4	4	4	5	6	6	6

Event defined as relapse, clinical intervention for impending relapse (non-TSC), or death
Cox PH Ratio = 0.304, CI = (0.096, 0.966, p = 0.0435); Log-rank p = 0.0321

Updated to include 2 events in the treatment arm reported after the Nov 20, 2024 data cut

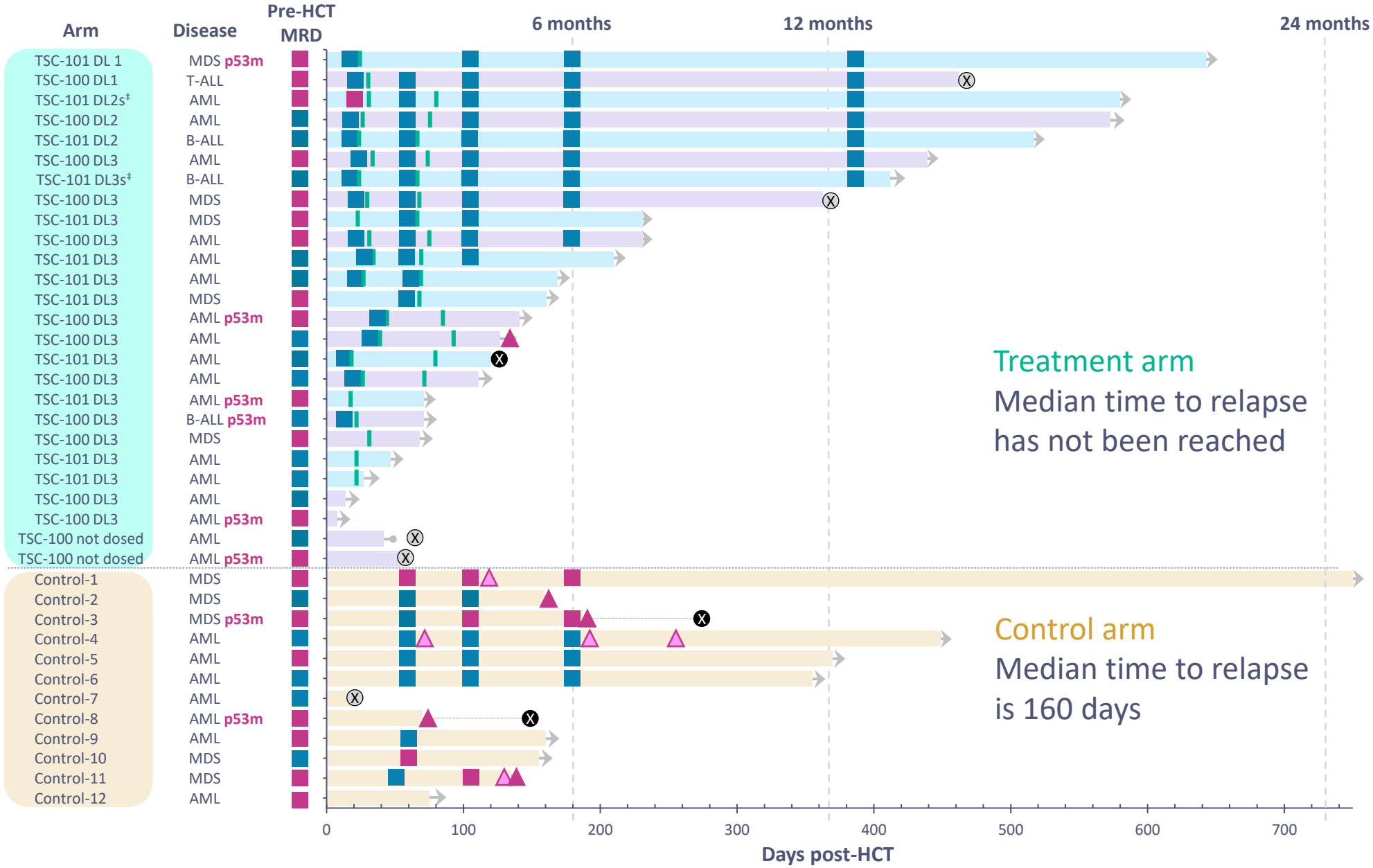
Complete donor chimerism achieved in all patients after initial TSC infusion



Donor chimerism results using commercially available **short tandem repeat (STR) assay** with LOD of 1-2% at indicated times post-HCT ± 3 days in patients at least 60 days post-HCT as of data cut; ‡Dose did not meet target dose criteria in supplemental cohorts

Updated to include 2 events in the treatment arm reported after the Nov 20, 2024 data cut

MRD negativity achieved in all treatment-arm subjects



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Updated to include 2 events in the treatment arm reported after the Nov 20, 2024 data cut

Summary

- Infusions with TSC-100 and TSC-101 were well-tolerated with no DLTs and adverse events consistent with HCT
- TSC-100 and TSC-101 TCR-T cells have been detected > 1-year post infusion and have a clear dose-persistence relationship
- 2 of 26 (8%) treatment-arm subjects relapsed as compared to 4 of 12 (33%) control-arm subjects
    - Median time to relapse was not evaluable in TSC-treated subjects vs 160 days in the control arm
    - EFS strongly favors the treatment arm (HR=0.30)
- These data support the continued evaluation of TSC-100 and TSC-101 as adjuvant TCR-T cells to treat residual disease and prevent relapse in subjects with AML, ALL, or MDS post RIC-HCT