Allogeneic, Off-the-Shelf, Virus-Specific T Cell Therapies in Late-Stage Development

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AlloVir Key Investment Highlights

Posoleucel franchise opportunity in stem cell (allo-HCT) and solid organ transplant (SOT) patients

- **3 ongoing global Phase 3 registrational trials for 3 first-to-market indications expected to complete enrollment in 2023**
  - Large and critically important unmet need: preventing or treating clinically significant viral infections post transplant
  - Multi-virus prevention strategy has potential to transform the transplant space
    - Compelling Phase 2 trial results presented at ASH 2021 and 2022
    - High need and strong support from transplant and infectious disease communities
    - Robust enrollment in Phase 3 trial in 2022 accelerates timing for trial completion and data readout
- **Topline Phase 2 data in kidney transplant expected in Q1 2023**

Additional clinical and preclinical virus-specific T cell (VST) therapy candidates for pipeline advancement by AlloVir or a potential partner

$234M cash as of December 31, 2022

Restoring Immunity: Off-the-Shelf, Multi-Virus-Specific T Cell Therapies

VSTs are a clinically validated approach to treating viral infections in HCT patients

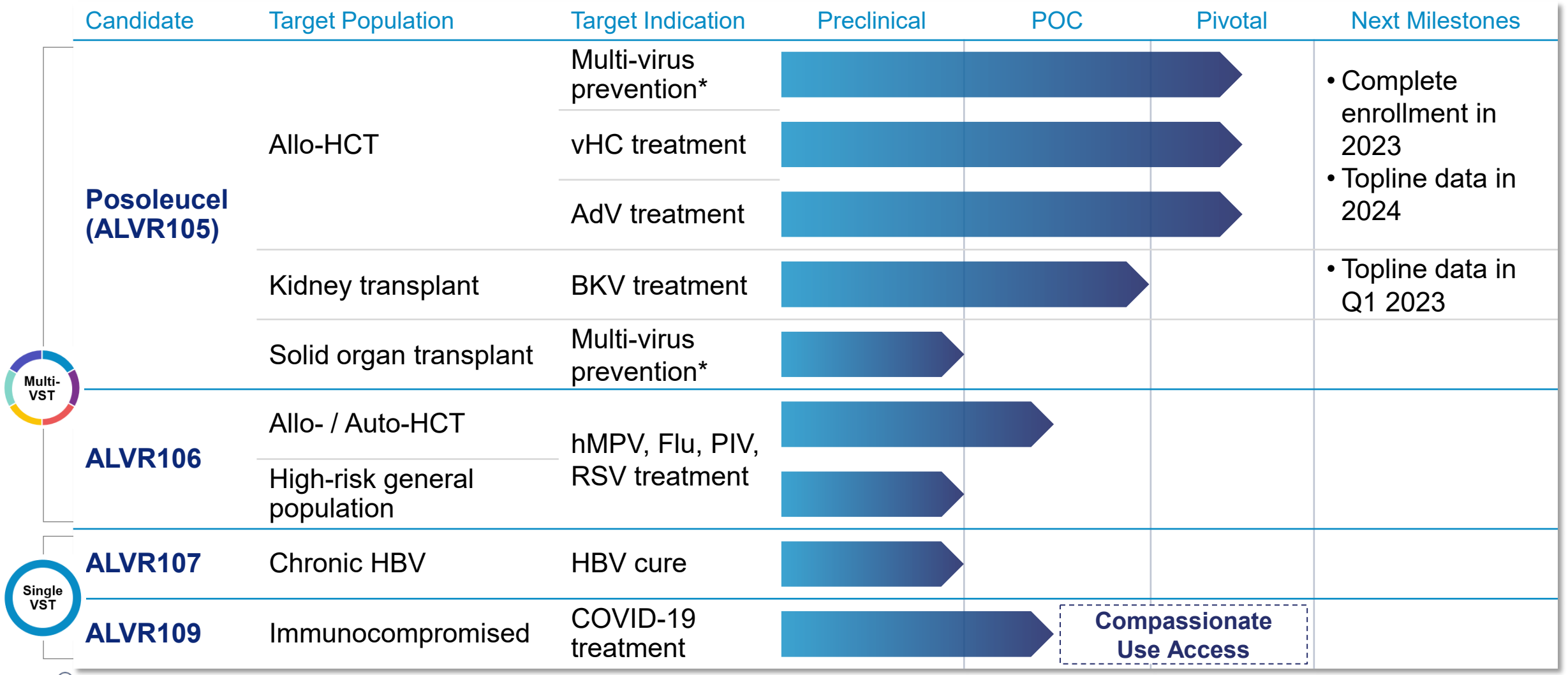
- Restore the T cell deficit that leads to uncontrolled viral replication

Advantages of AlloVir's VSTs

- Multi-virus targeting
- Third party, partial HLA matching
- Non-gene-modified, scalable manufacturing
- Off-the-shelf availability

AlloVir's innovation enhances the clinical utility of VSTs and enables on-demand delivery to patients

Our Pipeline Targets 12 Devastating Viruses With No Approved or Limited Effective Treatment Options



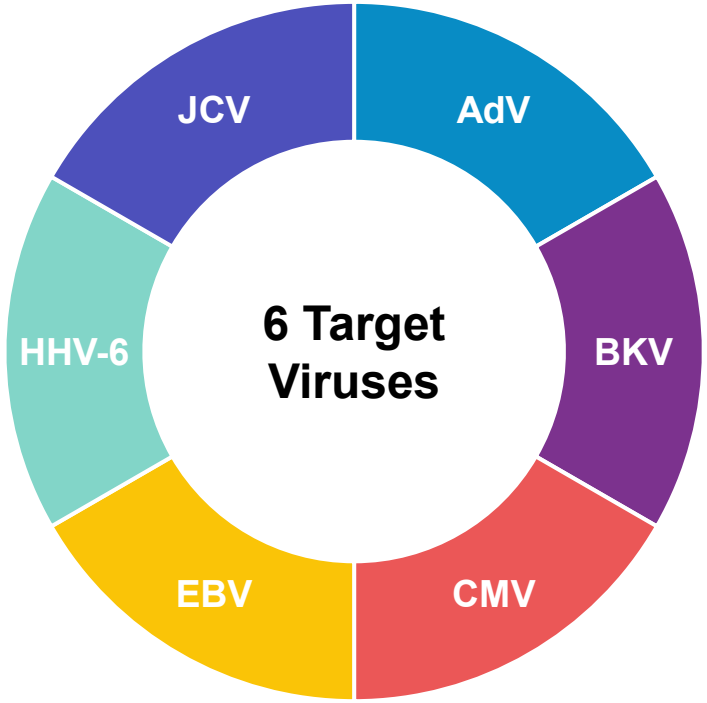
*Prevention of clinically significant infections or end-organ disease caused by adenovirus (AdV), BK virus (BKV), cytomegalovirus (CMV), Epstein-Barr virus (EBV), human herpesvirus 6 (HHV-6), JC virus (JCV).
Allo-HCT = allogeneic hematopoietic cell transplantation; Auto-HCT = autologous HCT; HBV = hepatitis B virus; hMPV = human metapneumovirus; Flu = influenza; PIV = parainfluenza virus; POC = proof-of-concept; RSV = respiratory syncytial virus; vHC = virus-associated hemorrhagic cystitis; VST = virus-specific T cell.

Posoleucel

Prevention and Treatment of Clinically Significant Viral Infections Post-Transplant

Posoleucel: Lead Therapy with Franchise Potential

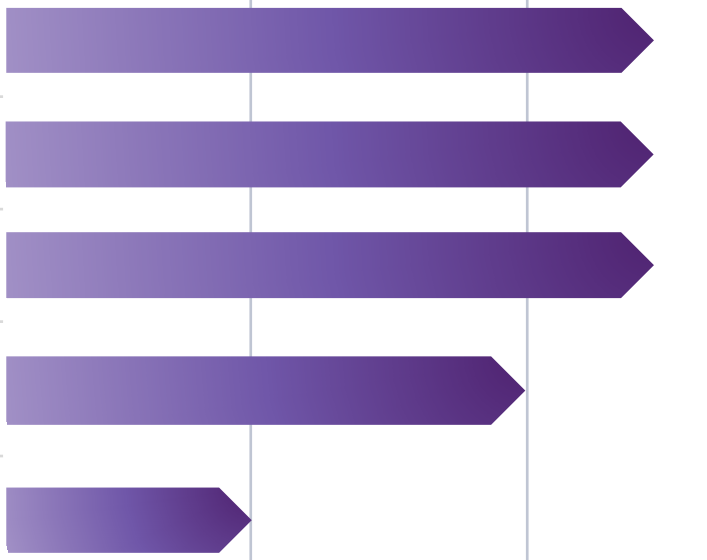
- Multi-VST therapy in Phase 3 development for 3 indications
- Targets 6 viruses that reactivate in 90% of allo-HCT patients[1]
  - Viruses associated with substantial morbidity and mortality
  - Limited to no effective treatments with substantial safety tradeoffs
- Phase 2 data demonstrate promising efficacy and safety profile in both treatment and prevention settings
- Blockbuster opportunity in allo-HCT with expansion potential to SOT and other immunocompromised patients



1. Hill J, et al. Blood. 2017;129:2316-25.

Three Phase 3 Registrational Trials Underway in HCT; Phase 2 SOT Trial On Track for Topline Final Data in Q1 2023

Target Population	Target Indication	Preclinical	POC	Pivotal	Next Milestones
Allo-HCT	Multi-virus prevention*				Complete enrollment by end of 2023; data in 2024
	vHC treatment				
	AdV treatment				
Kidney transplant	BKV treatment				Topline data in Q1 2023
Solid organ transplant	Multi-virus prevention*				

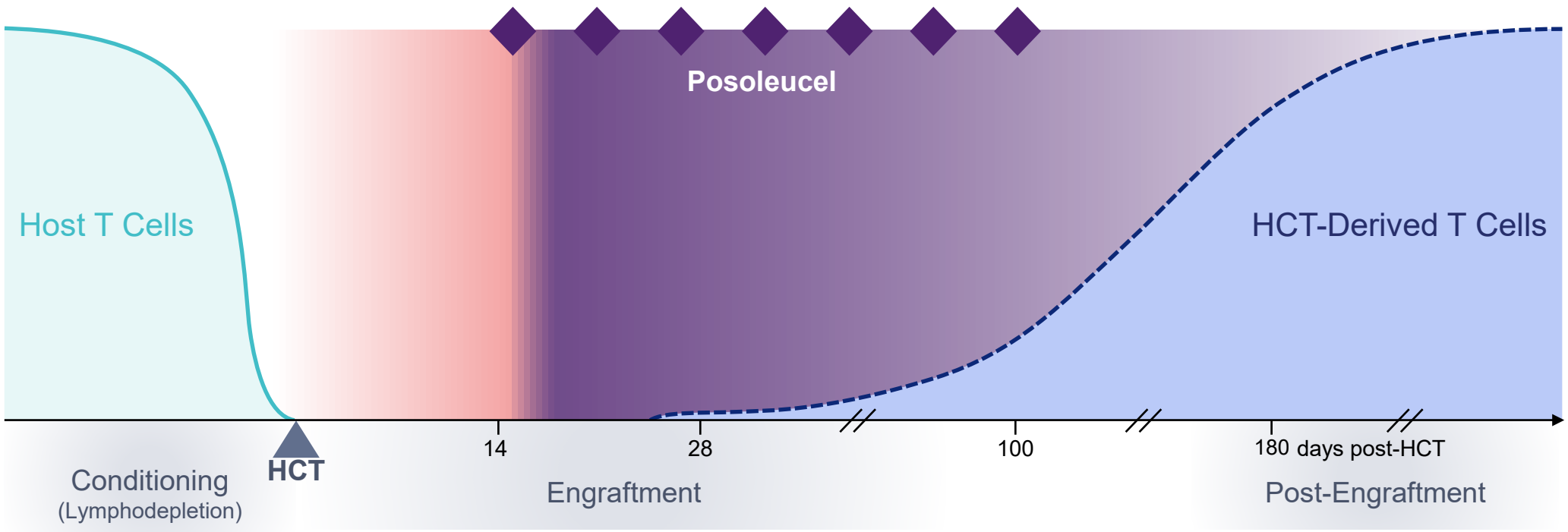


*Prevention of clinically significant infections or end-organ disease caused by AdV, BKV, CMV, EBV, HHV-6 and JCV.

Posoleucel Aims to Prevent Viral Infections and Disease Following Allogeneic Hematopoietic Cell Transplantation[1-6]

Posoleucel is designed to act as an **immunological bridge** in the highest-risk window of susceptibility post allo-HCT,

to prevent the progression of viral reactivation to clinically significant infections

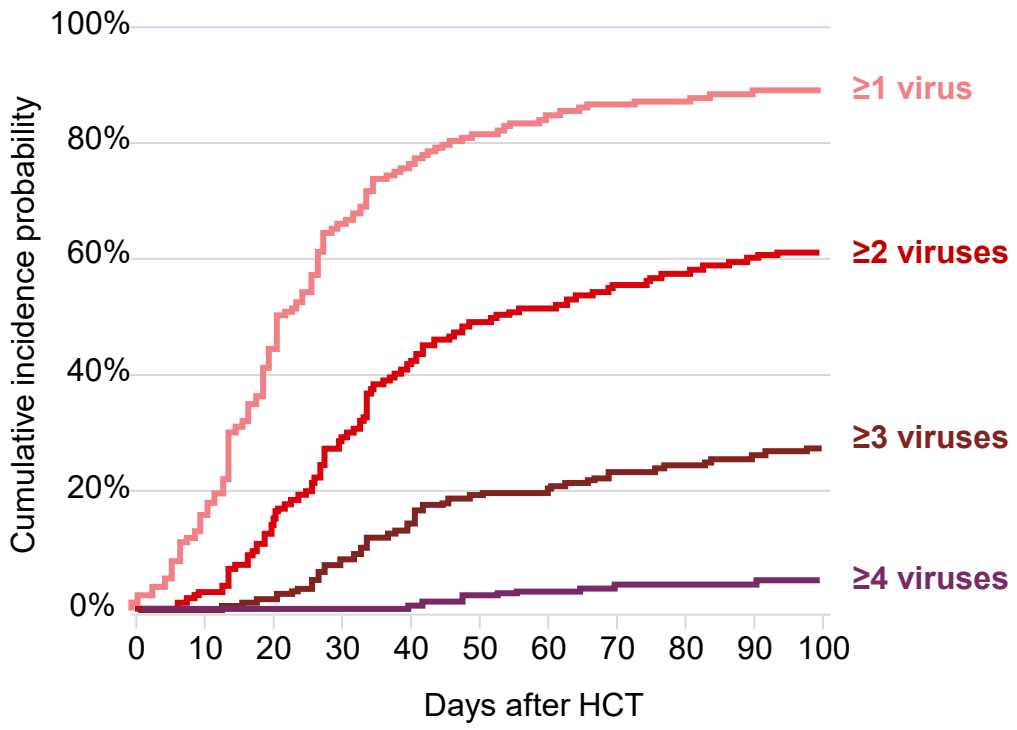


Note: Post 100-day data for proportion of patients with viral detection is from Huang YT, et al, as Hill J, et al only measured out to 100 days.

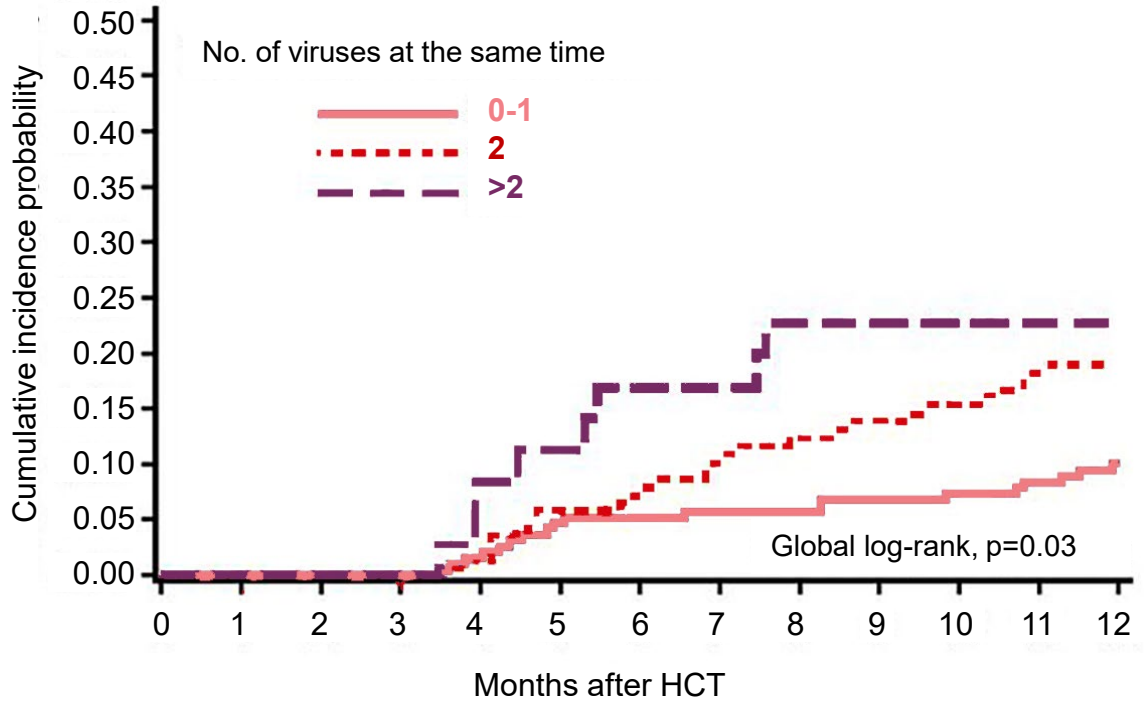
1. Kedia S, et al. *J Stem Cell Res Ther*. 2013;S3; 2. Ison M, Hirsch H. *Clin Microbiol Rev*. 2019;32:e00042-19; 3. Hill J, et al. *Blood*. 2017;129:2316-25; 4. Huang YT, et al. *Biol Blood Marrow Trans*. 2017;23:1759-66; 5. Stern L, et al. *Front Immunol*. 2018;9:1672; 6. Hill J, et al. *Clin Infect Dis*. 2018;66:368-75.

Multi-Virus Infections Are Common in Allo-HCT Patients and Contribute to Significant Mortality

Incidence of AdV, BKV, CMV, EBV or HHV-6 infection[1] (N=404)



Non-relapse mortality*, number of viruses at the same time[1] (N=358)



- 61% of patients were treated with antiviral therapies, excluding rituximab, within the first 100 days

1. Hill J, et al. *Blood*. 2017;129:2316-25. *Non-relapse mortality through Day 365 post-HCT among Day-100 survivors.

Foundation Set for >$1 Billion Commercial Opportunity in Allo-HCT

Strong Clinical & Economic Value Proposition
Positive Phase 2 data in treatment and prevention
Published claims analyses

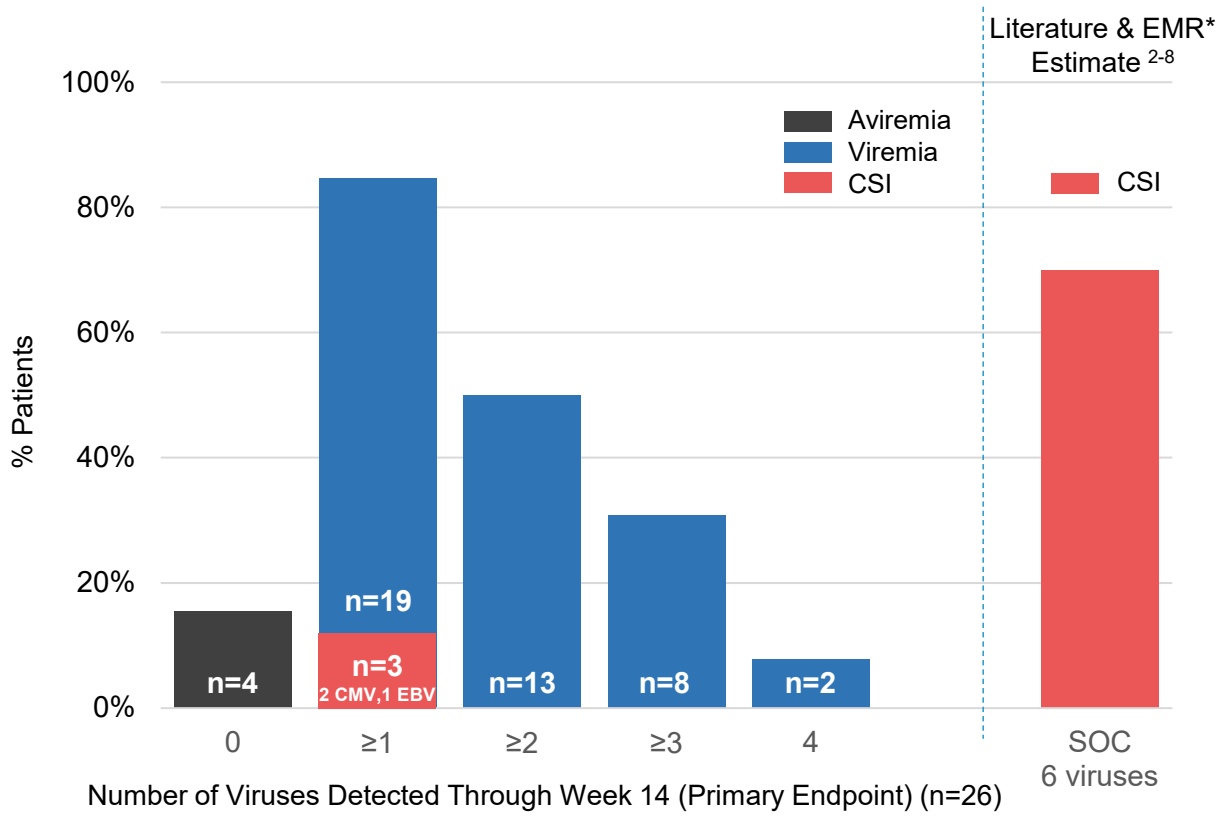
Targeted Prescriber Base Overlapping with Phase 3 Trial Sites
80% of U.S. allo-HCTs performed in 70 centers
Similar distribution in major EU markets

Supportive Reimbursement Landscape
60% U.S. patients commercially insured
CAR-T DRG code expanded to include immunotherapies

Large Addressable Patient Population
41,000 allo-HCT patients annually*
Potential addition of SOT & other immunocompromised patients

*Projected addressable patient population in 2025 for posoleucel indications in target markets in NA, EU, LATAM and A/P. Source: AlloVir analysis.

Final Open-Label Phase 2 Prevention Study Results Demonstrate Low Rates of Clinically Significant Infection[1]



Low Rates of Clinically Significant Infection

- 23/26 (88%) patients CSI-free through Week 14
- 22/26 (85%) patients reactivated ≥1 target virus

Repeat Dosing Generally Well Tolerated

- No unanticipated TEAEs or SAEs
- 5 cases (19%) of acute GVHD (grades II-IV)

Biomarker Data Support Mode of Action

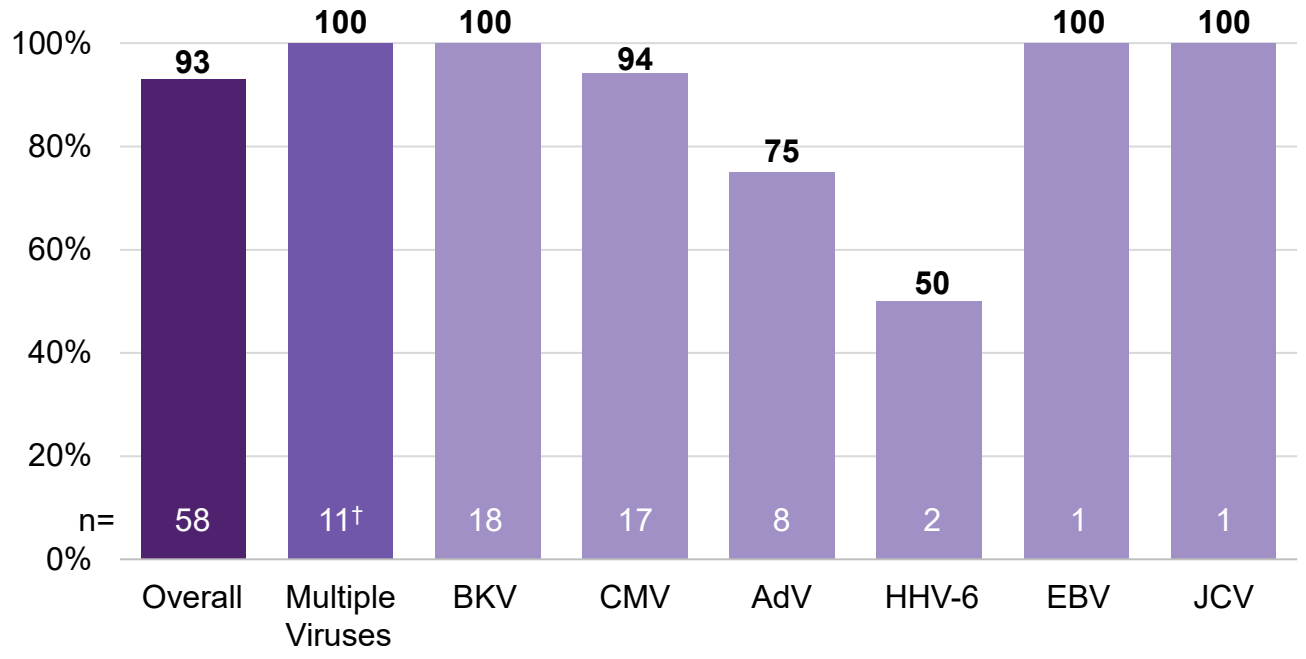
- VST cell expansion coincident with viral load declines
- Presence of posoleucel confirmed during and after infusion period

*Electronic medical records analysis of >1,400 patients identified between Jan 2018 and Apr 2021 through use of ganciclovir, valganciclovir, foscarnet, cidofovir, or rituximab or ICD-10 code for viral disease where available.

1. Dadwal S, et al. Abstract 362. Presented at ASH 2022; 2. Slade M, et al. *Transpl Infect Dis*. 2017;19(1):e12629.; 3. Mohty M, et al. *Brit J Haematol.* 2019;187e64; 4. Salamonowicz-Bodzioch M, et al. *Ann Hematol.* 2021;100:1283-93; 5. Chang YJ, et al. *Biol Blood Marrow Transplant.* 2019; 6. El-Zimaity M, et al. *Blood. 2004;103:4674-80;* 7. Gargiulo G, et al. *eCancer.* 2014; 8. Gabanti E, et al. *Transplant Cell Ther.* 2022;28:211.e1-211.e9.

Phase 2 CHARMS Treatment Study Demonstrated 93% Efficacy In Treatment-Refractory Patients[1,2]

Efficacy: Posoleucel Response Rate*



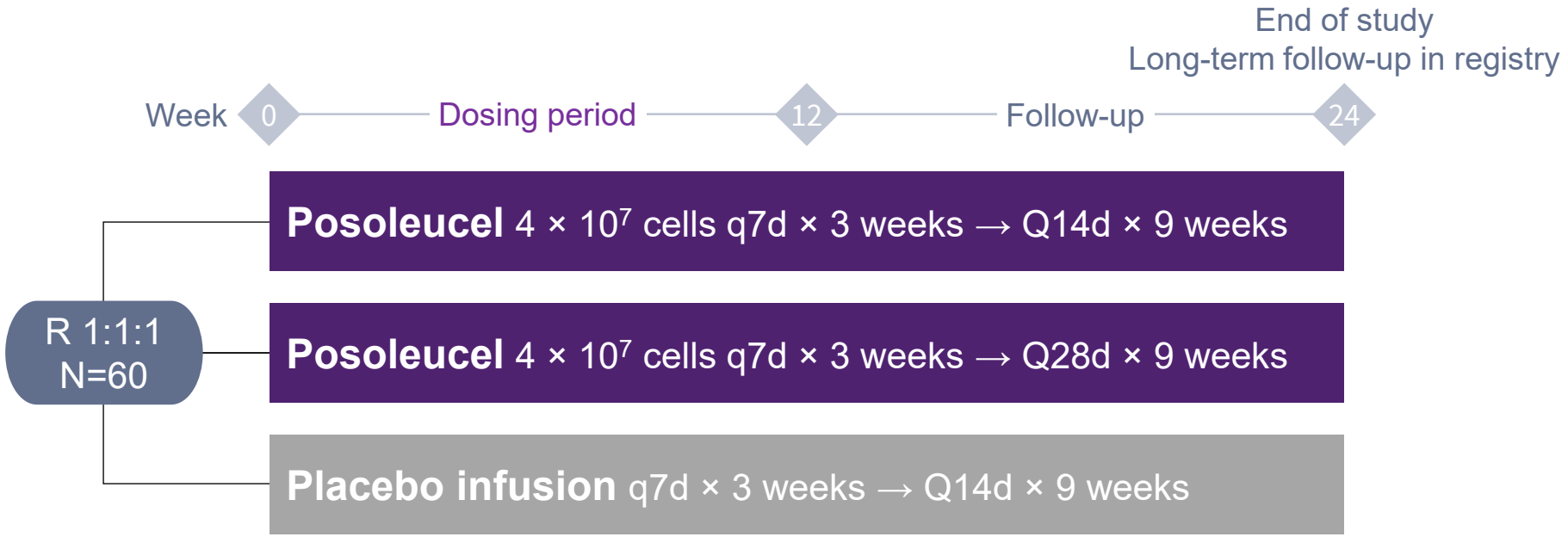
CR = Viral load return to normal range and resolution of clinical signs/symptoms
PR = ≥50% decrease in viral load and/or 50% improvement of clinical signs/symptoms

Safety: Posoleucel Well Tolerated

- Infusions were well tolerated
  - n=3 developed isolated fever within 24 hours of infusion; no immediate toxicities observed
- 14 cases of acute GVHD
  - n=8 had pre-existing GVHD
  - n=6 *de novo* GVHD; all had transient Grade I skin GVHD resolved with treatment
- No cytokine release syndrome

*Response rate / patient includes partial response (PR) or complete response (CR) by 6 weeks post-posoleucel infusion; †11/11 patients had a response to ≥1 virus(es) and 19 of 23 viruses across the 11 patients responded to posoleucel. 1. Tzannou I, et al. *J Clin Oncol* 2017;35:3547-57; 2. Tzannou I, et al. ASH 2020. Accessed January 4, 2021. https://ash.confex.com/ash/2020/webprogram/Paper143037.html.

Final Results of Phase 2 BKV-Kidney Transplant Study Expected in Q1 2023



- Phase 2, multicenter, randomized, double-blind, placebo-controlled, multiple dosing interval, 2-period study
- Key eligibility criteria: adults with kidney transplant ≥28 days prior to enrollment, stratified by BK viral load
- Primary endpoint: safety and tolerability through Week 24
- Key secondary endpoint: reduction in BK viremia

ClinicalTrials.gov NCT04605484.

Early-Stage Pipeline

Respiratory Viruses, HBV and COVID-19

VST Platform Rich with Pipeline and Partnering Opportunities

Candidate	Target Population	Target Indication	Preclinical	POC	Pivotal	Next Milestones
ALVR106	Allo- / Auto-HCT	hMPV, Flu, PIV, RSV treatment	→	→		Continued enrollment in U.S.
	High-risk general population		→			
ALVR107	Chronic HBV	HBV cure	→			POC study to initiate upon completion of posoleucel Phase 3 studies
ALVR109	Immunocompromised	COVID-19 treatment	→	**Compassionate Use Access**		Case series[1,2,3]

Allo-HCT = allogeneic hematopoietic cell transplantation; Auto-HCT = autologous HCT; HBV = hepatitis B virus; hMPV = human metapneumovirus; Flu = influenza; PIV = parainfluenza virus; POC = proof-of-concept; RSV = respiratory syncytial virus; VST = virus-specific T cell. 1. Martits-Chalangari K, et al. Am J Transplant. 2022;22:1261-65. 2. Haidar G, et al. Abstract 9011. Presented at ATC 2022. 3. Vasileiou S, et al. Haematologica. https://doi.org/10.3324/haematol.2022.281946 [Early view].

Posoleucel: Transformative Milestones Ahead

Posoleucel franchise positioned for significant value creation over the next 12-24 months

Posoleucel expansion opportunity in solid organ transplant

- Phase 2 BK viremia treatment study in kidney transplant patients

Posoleucel Phase 3 studies in 3 first-to-market indications for allo-HCT patients

- Multi-Virus Prevention
- Virus-Associated Hemorrhagic Cystitis Treatment
- Adenovirus Treatment

Potential >$1B market opportunity in allo-HCT alone