UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 13, 2025

Century Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**001-40498**	**84-2040295**
(State or other jurisdiction of incorporation or organization)	(Commission File Number)	(I.R.S. Employer Identification No.)

25 North 38th Street, 11th Floor **Philadelphia, Pennsylvania**	**19104**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(267) 817-5790**

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	**Trading Symbol**	**Name of Exchange on Which Registered**
Common Stock, par value $0.0001 per share	**IPSC**	**Nasdaq Global Select Market**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 2.02 Results of Operations and Financial Condition

On January 13, 2025, Century Therapeutics, Inc. (the "Company") announced that, as of December 31, 2024, the Company had approximately $220 million of cash, cash equivalents and investments. This unaudited, preliminary amount has been prepared by and is the responsibility of management. This amount is based upon information available to management as of the date of this Current Report on Form 8-K and subject to completion of financial closing procedures that could result in changes to the amount. Furthermore, this amount does not present all information necessary for an understanding of the Company's financial condition as of December 31, 2024. The Company's independent registered public accounting firm, Ernst & Young LLP, has not audited, reviewed, compiled or performed any procedures with respect to this preliminary financial data and, accordingly, Ernst & Young LLP does not express an opinion or any other form of assurance with respect thereto. The Company's actual results for the year ended December 31, 2024 will be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2024 and may differ materially from the above estimate.

The information furnished pursuant to this Item 2.02 is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 7.01 Regulation FD Disclosure

On January 13, 2025, the Company updated information reflected in a slide presentation, which is attached hereto as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference. Representatives of the Company will use the updated presentation in various meetings with investors from time to time.

The information contained in this Item 7.01 (including Exhibit 99.1) is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section and shall not be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.	Document
99.1	Investor Presentation of Century Therapeutics, Inc., dated January 13, 2025
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

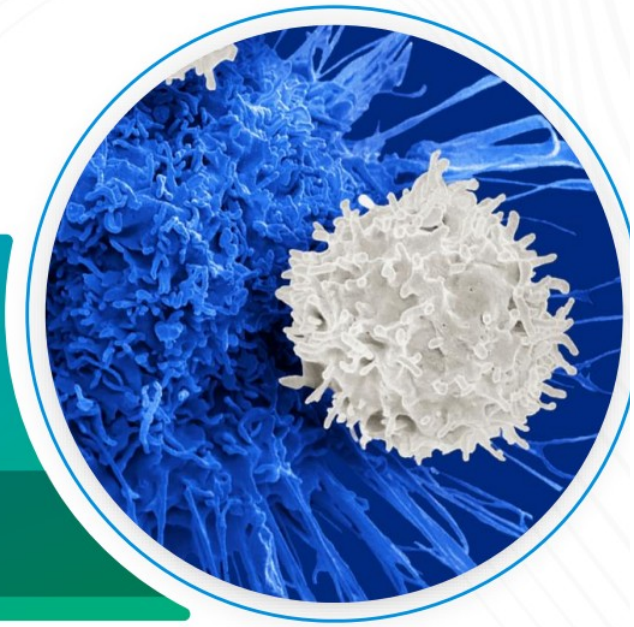
CENTURY THERAPEUTICS, INC.

By: /s/ Brent Pfeiffenberger, Pharm.D.
Name: Brent Pfeiffenberger, Pharm.D.
Title: President and Chief Executive Officer

Date: January 13, 2025

Exhibit 99.1

CENTURY THERAPEUTICS



Corporate Overview

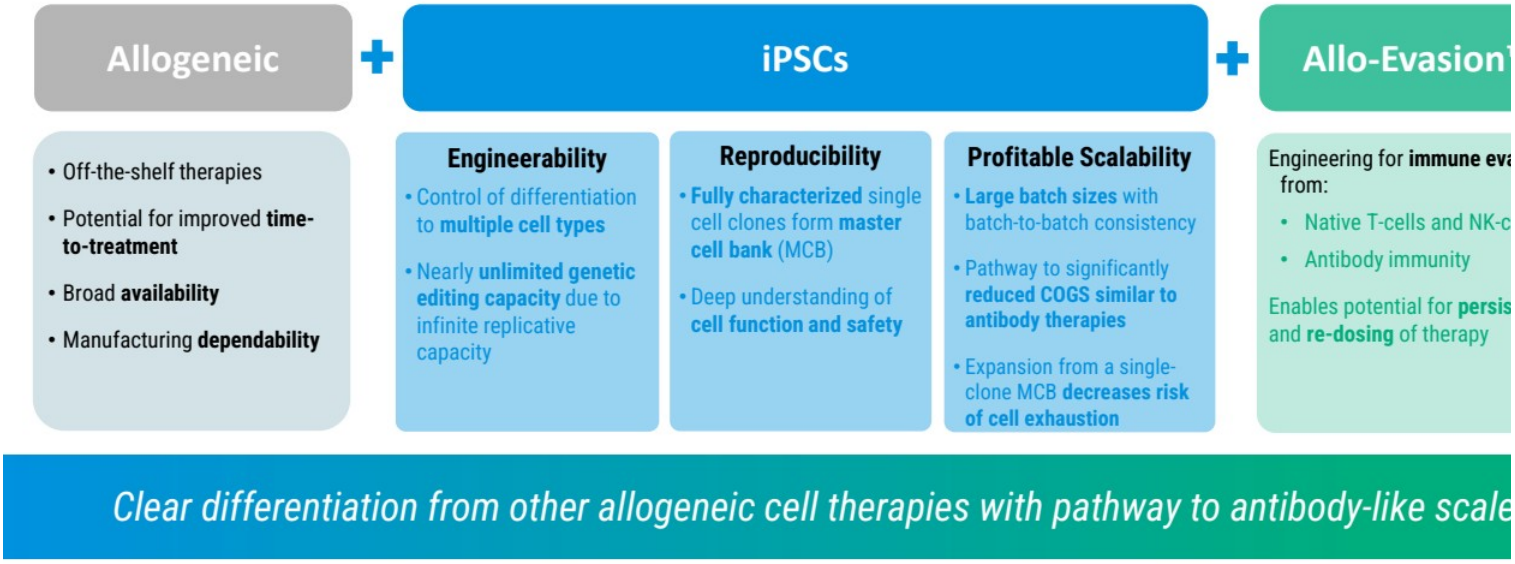
January 2025

Forward-looking statements

This presentation contains forward-looking statements within the meaning of, and made pursuant to the safe harbor provisions of, The Private Securities Litigation Reform Act of 1995. A statements contained in this presentation, other than statements of historical facts or statements that relate to present facts or current conditions, including but not limited to, statemer regarding our clinical development plans and timelines and the initial safety and efficacy profiles of CNTY-101 are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance, or achievements to be materially different from any future results, performance achievements expressed or implied by the forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "may," "might," "will," "should," "expect," "plan," "aim," "seek," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "forecast," "potential" or "continue" or the negative of these terms or other similar expressions. The forward-looking statements in this presentation are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition, and results of operations. These forward-looking statements speak only as of the date of this presentation and are subject to a number of risks, uncertainties and assumptions, some of which cannot be predicted or quantified and som of which are beyond our control, including, among others: our ability to successfully advance our current and future product candidates through development activities, preclinical studie and clinical trials; our dependence on the success of our lead product candidate, CNTY-101; our ability to progress CNTY-101 through our CALiPSO and ELiPSE Phase 1 clinical trials; ou ability to meet development milestones on anticipated timelines; uncertainties inherent in the results of preliminary data, pre-clinical studies and earlier-stage clinical trials, which may n be predictive of final results or the results of later-stage clinical trials; our ability to obtain FDA clearance of our future IND submissions and commence and complete clinical trials on expected timelines, or at all; our reliance on the maintenance of certain key collaborative relationships for the manufacturing and development of our product candidates; the timing, sco and likelihood of regulatory filings and approvals, including final regulatory approval of our product candidates; the impact of geopolitical issues, banking instability and inflation on our business and operations, supply chain and labor force; the performance of third parties in connection with the development of our product candidates, including third parties conducting our clinical trials as well as third-party suppliers and manufacturers; our ability to successfully commercialize our product candidates and develop sales and marketing capabilities, if ou product candidates are approved; our ability to recruit and maintain key members of management and our ability to maintain and successfully enforce adequate intellectual property protection. These and other risks and uncertainties are described more fully in the "Risk Factors" section of our most recent filings with the Securities and Exchange Commission and available at www.sec.gov. You should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur, and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in a dynamic industry and economy. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties that we may face. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

CENTURY THERAPEUTICS

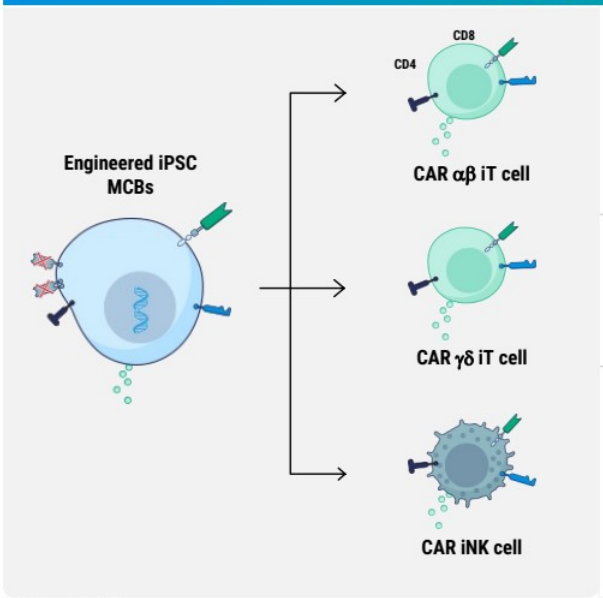
Century's ability to create multiple iPSC-derived cell types incorporating Allo-Evasion™ stands apart from other allogeneic cell therapy approaches



CENTURY THERAPEUTICS

Century's capability to make multiple cell types enables optimal matching of cell characteristics to indication

The right cell for the right indication(s)



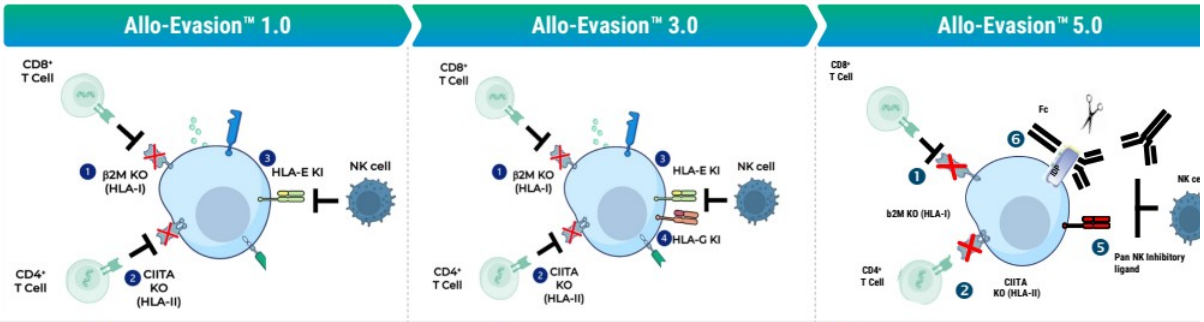
Adaptive lymphocytes – capable of generating **distinct functional attributes**	Greatest **proliferative potential** – potentially most useful for ongoing antigenic pressure	GvHD risk, eliminated by knockout of T cell receptor (TCR)	Potential for **long-lived memory**, mediating immune surveillance
Bridge between innate and adaptive lymphocytes	**Rapid activation** response and capacity for clonal expansion	No GvHD risk, TCR is invariant	Trafficking and persistence as **'tissue-resident T-cells'**
Innate lymphocytes – **most potent cytolytic capacity**	Less rapid and more limited expansion gives **greater control over exposure** – potentially more useful for short-term treatment	Little GvHD risk, naturally suppressive	Traffic to **bone marrow and secondary lymphoid tissue**

MCB: Master Cell Bank
GvHD: Graft vs Host Disease

CENTURY THERAPEUTICS

Century is a leader in immune evasion engineering

Continuous evolution of holistic protection from major immunity pathways

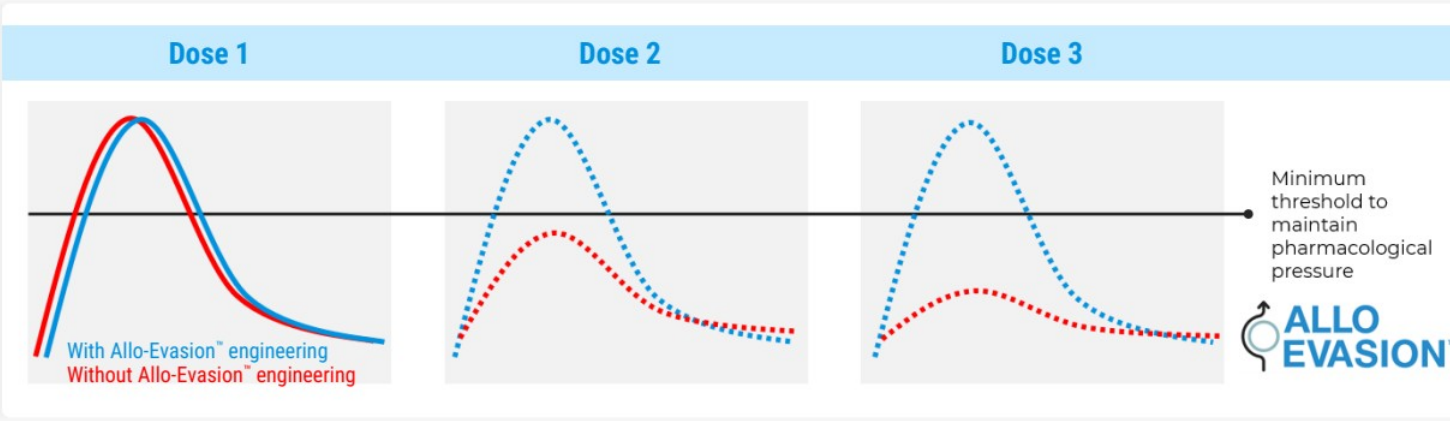


Protection from:	Allo-Evasion™ 1.0	Allo-Evasion™ 3.0	Allo-Evasion™ 5.0
Native T-cells	❶ Deletion of HLA-I ❷ Deletion of HLA-II	❶ Deletion of HLA-I ❷ Deletion of HLA-II	❶ Deletion of HLA-I ❷ Deletion of HLA-II
Native NK-cells	❸ Insertion of HLA-E	❸ Insertion of HLA-E ❹ Insertion of HLA-G	❺ Insertion of CD300a TASR pan-NK inhibitory ligand[1]
Humoral immunity			❻ Insertion of cell-surface enzyme to degrade IgG antibodies[2]
	CNTY-101	CNTY-102 CNTY-108	CNTY-308 CNTY-361 CNTY-107

1. https://www.centurytx.com/wp-content/uploads/ASH_Welstead_Universal-Protection-of-Allogenic-T-Cells-Final.pdf
2. https://ashpublications.org/bloodadvances/article/doi/10.1182/bloodadvances.2024013436/518079/Universal-Protection-of-Allogeneic-T-Cell

CENTURY THERAPEUTICS

Allo-Evasion™ engineering aims to drive durable responses by enabling repeat dosing for tighter control over drug exposure



Ongoing clinical data from CNTY-101 in ELiPSE-1 show persistent exposure in the presenc of an intact immune system[1]

1. Company data: ELiPSE-1 Phase 1 study in B-cell malignancies

CENTURY THERAPEUTICS

Century is advancing a diverse iPSC pipeline across cell types and targets in cancer and autoimmune diseases

Product	iPSC	Allo-Evasion™	Targets	Indications	Research	IND-enabling	Clinical		
							P1	P2	P3
CNTY-101	iNK	1.0	CD19	B-cell malignancies	ELiPSE-1				
				Autoimmune diseases	CALiPSO-1				
CNTY-308	αβ iT	5.0	CD19	Autoimmune diseases					
				B-cell malignancies					
CNTY-361	αβ iT	5.0	BCMA	Myasthenia gravis					
CNTY-102	γδ iT	3.0	CD19 + CD22	B-cell malignancies					
CNTY-104*	iNK/iT	Undisclosed	Multi-specific	AML					
CNTY-106*	iNK/iT	Undisclosed	Multi-specific	MM					
CNTY-107	iT	5.0	Nectin-4	Solid tumors					
CNTY-108	iNK/γδ iT	3.0	CD19	Autoimmune diseases					

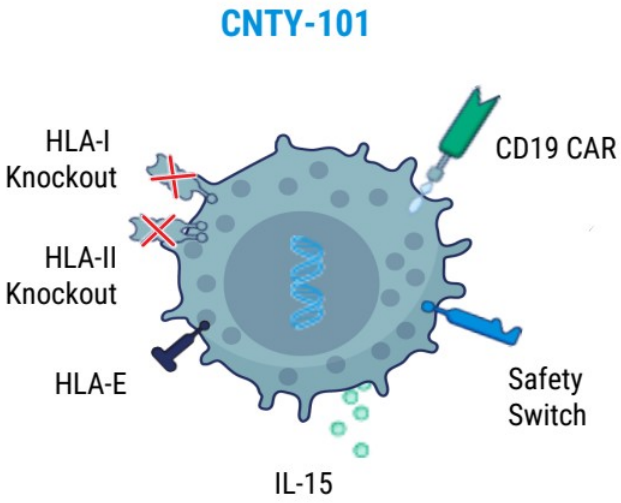
Hematologic tumors
Autoimmune diseases
Solid tumors

In partnership with Briseran Myers Squibb. On December 12, 2024, Bristol Myers Squibb informed Century of its intent to terminate the collaboration effective March 12, 2025

CENTURY THERAPEUTICS


CENTURY
THERAPEUTICS
CNTY-101
CAR-iNK cell therapy with Allo-Evasion™ 1.0

CNTY-101: A CD19-targeted CAR-iNK product designed to provide precise control of drug exposure and enable repeat dosing



CNTY-101 off-the-shelf CAR-iNK cell therapy designed to treat patients with B cell-mediated diseases

- Six precision gene edits
  - CD19-targeted CAR for B-cell depletion
  - Allo-Evasion™ technology enables re-dosing without lymphodepletion
  - Secreted IL-15 enhances cell persistence
  - Safety switch enables elimination of CNTY-101 with cetuximab, if required for patient safety
- iNK cells incorporating Allo-Evasion™ provide more predictable pharmacokinetics and pharmacodynamics

Currently in Phase 1 trials in B-cell malignancies (ELIPSE) and autoimmune disorders (CALIPSO-1)

https://www.centurytx.com/wp-content/uploads/ASGCT24-CNTY-101-AI-Poster.pdf

CENTURY THERAPEUTICS

CNTY-101 in relapsed/refractory B-cell lymphomas aims to deliver durable responses via repeat dosing

Facilitated by Allo-Evasion™ and extending the period of pharmacologic pressure on tumor cells

Unmet need:	Potential solution from Century's platform:
• Autologous CD19 CAR-T is curative in ~40%[1] of patients • Autologous CD19 CAR-T access is limited and/or can fail in manufacturing as quality is dependent on patient-derived starting material • Limited options and poor prognosis for patients who fail autologous CAR-T	• Off-the-shelf product offers immediate access and consistency • Multiple doses to increase pharmacological pressure to increase durability • Host rejection addressed by Allo-Evasion™ edits

CAR-T: Chimeric Antigen Receptor T cell therapy [1]Cappell, Nature Reviews Clinical Oncology 2023

CENTURY THERAPEUTICS

ELiPSE-1 is a dose-escalating Phase 1 study of CNTY-101 in B-cell malignanc (NCT05336409)

Patients with CD19+ aggressive and high-risk indolent R/R B-NHL

- DLBCL, HGBL, MCL, PMBCL, FL3B, FL, MZL
- ≥2 prior lines of therapy
- Prior CD19-targeted cell therapy allowed

- Part 1 – Dose escalation
  - Schedule A: Single dose
  - Schedule B: 1 dose per week x 3 weeks
- Part 2 – Dose expansion

Bayesian Optimal Interval (BOIN) design

1. Standard lymphodepletion regimen: fludarabine (30 mg/c/d) and cyclophosphamide IV (300 mg/m/d) for 3 days
2. Subjects who are assessed as stable disease or better may receive additional cycles of CNTY-101
3. Subjects at DL4A did not receive IL-2 on the day of CNTY-101 infusion but did receive IL-2 daily for 7 days
4. For DL 4B, initial 2 cycles at DL 4B; subsequent cycle regimen depending on response or risk/benefit

DLBCL: Diffuse large B cell Lymphoma; HGBL: High-Grade B-cell Lymphoma; MCL: Mantle Cell Lymphoma; PMBCL: Peripheral Mediastinal B-cell Lymphoma; FL3B: Follicular Lymphoma Grade 3B; FL: Follicular Lymphoma; MZL: Marginal Zone Lymphoma
DLT: Dose Limiting Toxicity
IL-2: Interleukin-2 (dose: 3e6 IU; subcutaneous)

CENTURY THERAPEUTICS

ELiPSE-1 enrolled heavily pre-treated R/R B-NHL patients

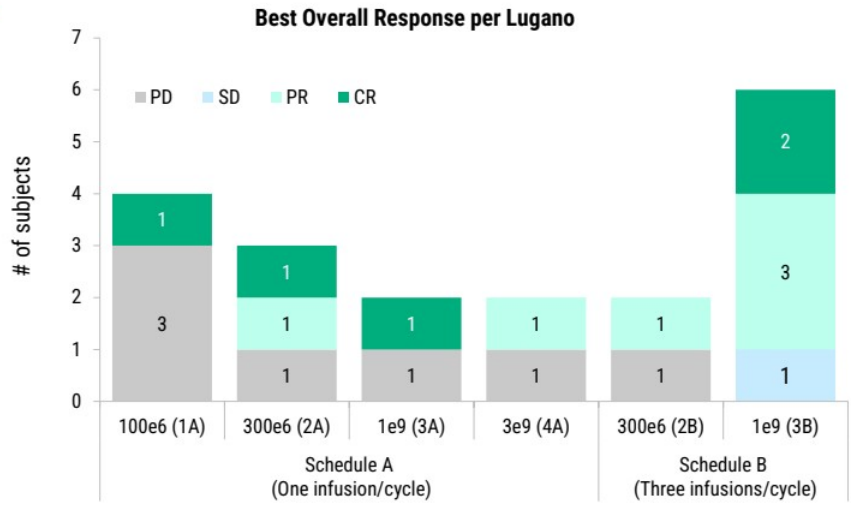
Baseline characteristics	Safety evaluable (N=20)
Median age (range, years)	66 (51–80)
Male, n (%)	16 (80)
Median follow up (range, months)	3.34 (0.5–18.8)
NHL subtype, n (%)	
DLBCL	11 (55)
HRFL	2 (10)
MCL	4 (20)
MZL	3 (15)
Prior therapies, median (range)	4 (2–6)
Response to Last Line of Treatment, n (%)	
Relapsed	8 (40)
Refractory	12 (60)
Received Prior CAR T, n (%)	9 (45)

ELiPSE-1 (NCT05336409) Phase 1 study in CD19+ B-cell Malignancies
[1] As of 15 October 2024 data snapshot date, data collection ongoing
DLBCL: Diffuse Large B Cell Lymphoma, HRFL: High-Risk Follicular Lymphoma; MCL: Mantle Cell Lymphoma, MZL: Marginal Zone Lymphoma

CENTURY THERAPEUTICS

CNTY-101 shows evidence of dose-responsive efficacy in ELiPSE-1 Phase 1

Increased ORR at higher dose alongside a favorable safety profile



Efficacy (DL3B, N=6)

- 83% ORR; median follow up 2.9 months (range 1.2–5.3 months)
- All subjects were eligible to receive additional cycle(s)
- 4 patients received prior autologous CAR-T therapy

Safety & Tolerability (N=20)

- No GvHD; no DLTs
- CRS: Grade 1 (N=3), Grade 2 (N=3)
  - Hypotension (n=2) and hypoxia (n=1) lasted <24 hrs.
- ICANS: Grade 1 (n=1), resolved in <24hrs
- Majority of subjects received at least one dose in the outpatient setting

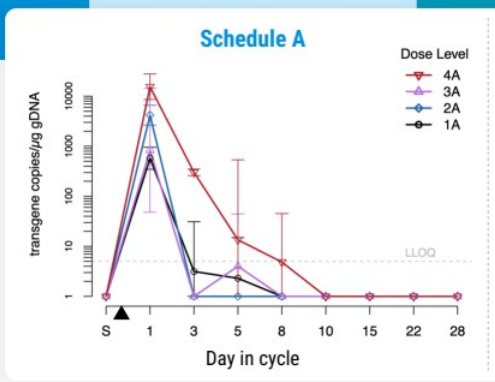
ELiPSE-1 (NCT05336409) Phase 1 study in CD19+ B-cell Malignancies. As of 15 October 2024, data snapshot date, data collection ongoing, efficacy based on Lugano criteria. n=19 total pts evaluable for efficacy, 58% BoR median follow up 3.34 months (range 0.5-18.8 months)
Schedule A (1 dose in a 28-day cycle); Schedule B (3 weekly doses in a 28-day cycle) ; DL1: (100e6), DL2: (300e6), DL3: (1e9), DL4: (3e9)
ORR: Overall Response Rate, DLTs: Dose Limiting Toxicities, CRS: Cytokine Release Syndrome, ICANS: Immune Effector Cell-Associated Neurotoxicity Syndrome, CAR: Chimeric Antigen Receptor |

CENTURY THERAPEUTICS

CNTY-101 exposure increases with dose and schedule

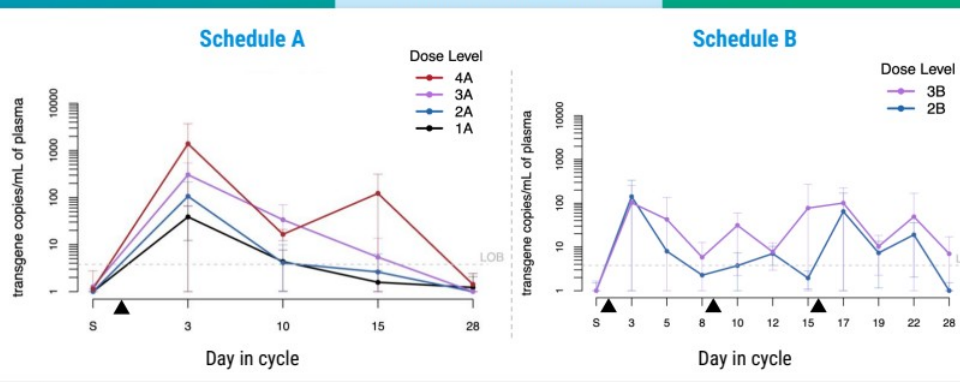
- **Extended persistence in circulation at dose level 4A (3 x 10e9 cell infusion)**
- **Persistence outside the bloodstream was detected via a cell-free (cf) DNA assay beyond day 15**
- **Multiple infusions in Schedule B drive increased exposure throughout the dosing cycle**

PBMC genomic DNA



Transgene copies per ug were determined using ddPCR with primers targeting transgene and RPP30. Data shows cycles with LDC across subjects at each dose level. Error bars shown are mean ± SD. LLOQ: Lower limit of quantification. Black triangle indicates infusion. S: Screen

Plasma cell-free DNA



Error bars show mean ± SD (due to log10 scale, low values are truncated at 1). Positivity values are determined to be significantly above LOB using two sample Poisson test, p 0.05. All LDC+ cycles are shown. Black triangles indicate infusions. S: Screen, LOB: Limit of Blank.

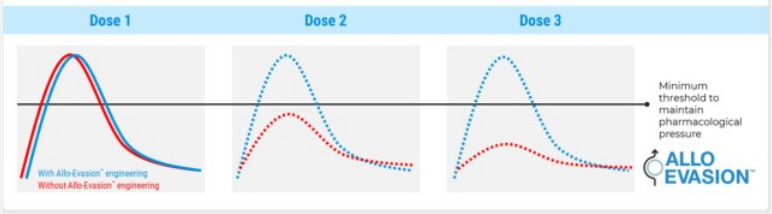
ELiPSE-1 (NCT05336409) Phase 1 study in CD19+ B-cell Malignancies. Translational data available as of Oct 28, 2024; Schedule A n=11, Schedule B n=8

CENTURY THERAPEUTICS

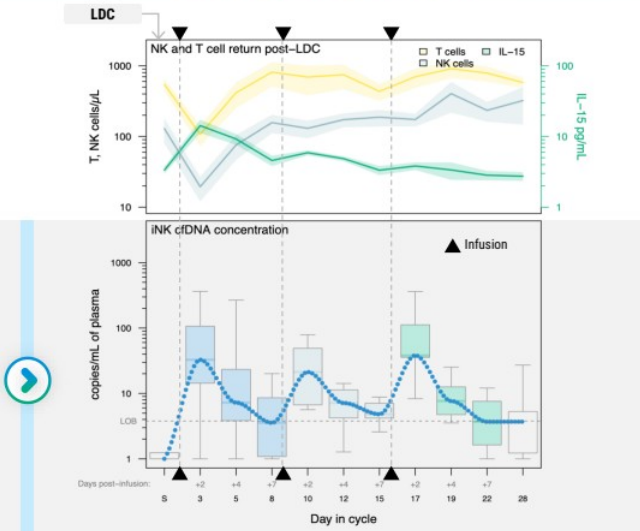
Enabled with Allo-Evasion™, CNTY-101 shows persistence in the presence of a restored immune system

- **Lymphodepleting Chemotherapy (LDC) depleted patient NK/T cell counts and drove a transient spike of IL-15 cytokine**
  - By post-infusion day 8, NK/T cell counts, IL-15 concentration returned to screening level
- **Similar PK profile observed for each CNTY-101 infusion within a cycle despite evident patient immune recovery**

Model of Allo-Evasion™-enabled cellular kinetics



Similar exposure of CNTY-101 in the presence or absence of endogenous lymphocytes



Graphs show data from dose level 3B cohort. Lines in the top panel represent mean and shaded area represents 1*SEM. Triangles 101 infusions within a Schedule B cycle, grey arrow indicates LDC. Dotted blue line is a LOESS fit to medians in bottom panel. S:

Translational data available as of Oct 28, 2024

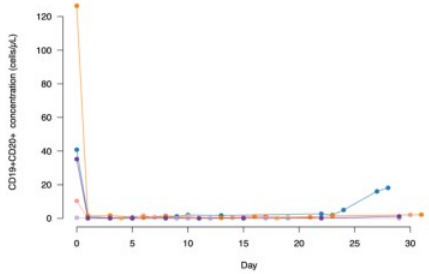
CENTURY THERAPEUTICS

CNTY-101 treatment demonstrates rapid B-cell depletion and was associated with naive non-class switched profile of re-emergent B-cells

Data in r/r NHL patients supports the application of CNTY-101 in autoimmune diseases

Rapid and effective depletion of circulating B cells observed in the first cycle

B-cell depletion

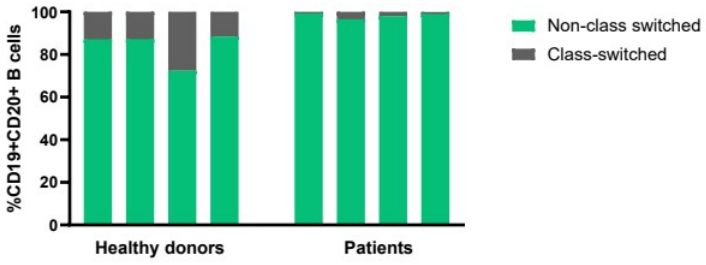


Graphs show data from the initial cycle of all subjects who had B cell counts of 0.25 cell/ mL or greater (N=10).). Each line represents an individual subject. Data from a subject with supraphysiological levels of circulating malignant B cells was excluded

Re-emergent B cells show naive non-class-switched profile

- Reduction of class-switched phenotypes in re-emergent B cells has been associated with SLE responses to CD19-targeted cell therapies

Re-emergent B-cell profile



Data shows proportion of non-class switched (IgD+, IgM+ or IgD+IgM+) or switched (IgD-IgM-) circulating B cells (CD19+ CD20+) in healt donors (N=4) or within earliest evaluable re-emergent B cells in patients (N=4). Majority of the B cells exhibited a naïve profile (IgD+ CD2 not shown)

Source: Company data, available as of Oct 28, 2024

CENTURY THERAPEUTICS

ELiPSE-1 initial data validates Century's iPSC platform

- Heavily pretreated and refractory patient population treated in first-in-human dose escalation trial, including ~50% patients who had received prior CAR T treatments
- Favorable initial safety profile; can be delivered in an outpatient setting
- Increased response rates at higher doses and observations of deepening responses with additional cycles.
  83% ORR at Dose Level 3B
- Dose-dependent increase in CNTY-101 exposure observed
- Data for CNTY-101 continues to support the potential for Allo-Evasion™ to enable a multi-dosing regimen in the presence of a restored endogenous immune system

ORR: Overall Response Rate

CENTURY THERAPEUTICS

Autoimmune disorders present significant unmet medical need

	Systemic Lupus Erythematosus (SLE)	Lupus Nephritis (LN)	Idiopathic Inflammatory Myopathy (IIM)	Diffuse cutaneous Systemic Scleros (dcSSc)
Characteristics	Multiorgan, potentially fatal, inflammatory disease with risk for organ damage, including skin, heart, and brain	Kidney manifestation of SLE with potential kidney failure requiring dialysis and increased risk for mortality	Inflammation of muscle, lungs, skin, joints, and gastrointestinal tract causing weakness, pain, and lung failure which can lead to chronic disability and potentially mortality	Fibrosis and vasculopathy of the skir and internal organs, with high risk fo disability, disfigurement, and cardiopulmonary mortality
US Prevalence[1]	180,000-340,000	80,000–120,000	>60,000	>85,000 (SSc)
Initial addressable subpopulations[2]	>20,000	>30,000	>10,000	>30,000
Standard of care	Corticosteroids, chemotherapy, immunosuppressants, anticoagulants, plasmapheresis	Corticosteroids, chemotherapy, immunosuppressants, dialysis	Corticosteroids, immunosuppressants, IVIg	Slow progression: Immuno-suppressants, vasodilators, antifibro agents
Limited efficacy with approved therapies[3]	<35% low disease activity (LLDAS)	<40% complete renal response (CRR)	<40% total improvement score (TIS) of 60%	Slower decline in lung function (FVC decrease >24 mL/year on therapy)
Unmet Medical Need	Low disease activity, prevention of organ damage, survival	Prevention of renal failure, survival	Remission, maintain function, prevention of calcinosis, damage, respiratory failure, survival	Slow progression, prevent cardiac or respiratory failure, survival

Despite approved treatments, significant underappreciated unmet need remains

SoC relies on **chronic treatment** with broad-acting corticosteroids & immunosuppressives

Treatment toxicity and **disease flares** leading to organ damage remain common

Current treatments fail to significantly improve **quality of life** or prevent **organ failure** in majority of patients

Even effective available treatments leave patients suffering with **active disease**, **shortened lifespan**, a prospect of **life-long medication**

(1) Tian Ann Rheum Dis 2023; Izmirly Arth Rheum 2021; Duarte-Garcia Ann Rheum Dis 2022; Hocaoglu Arth Rheum 2022; Smoyer-Tomic BMC Musculoskeletal Disorders 2012; Khoo Nat Rev Rheum 2023; Bendewald Arch Dermatol 2010; Bairkdar Rheumatology 2021; Fan *J Manag Care Spec Pharm.* 2020
(2) Estimates include refractory subpopulations. Morand Ann Rheum Dis 2018; Morand Ann Rheum Dis 2023; Oon Ann Rheum Dis 2019; Morand Arth Rheum 2023; Scherlinger Ann Rheum Dis 2019; Clowse *Arthritis Rheumatol 2024 (abstract);* Mayes Arth Rheum 2003
(3) Highest efficacy values reported; not necessarily Phase 3 trial primary efficacy endpoints that supported FDA approval. Oon Ann Rheum Dis 2019; Morand Ann Rheum Dis 2023; Aranow Ann Rheum Dis 2024; Rovin Lancet 2021; Hanni CJASN 2024; Saxena Arth& Rheum 2023; Furie NEJM 2020; Aggarwal NEJM 2022; Distler NEJM 2019; Khanna Lancet Respir Med 2020

LLDAS, lupus low disease activity state; FVC, forced vital capacity

CENTURY THERAPEUTICS

Clear opportunity for allogeneic cell therapies to address moderate to severe autoimmune indications by providing long-term, drug-free remission

Significant patient population and unmet need

- Tens of thousands of patients with unmet need in the US
- Heterogeneous nature of patients with autoimmunity supports opportunity for multiple modalities within and across indications
- Treatments needed to **resolve inflammation**, prevent organ failure, **normalize lifespan**, and avoid toxicity of **life-long medication**

Compelling evidence for benefit from deep depletion of pathogenic B-cells

- Autologous anti-CD19 CAR-T cell therapies demonstrate potential for long-term drug-free remission
  - Unmet challenges include safety (CRS, ICANS, neutropenia, B cell aplasia), logistics, and product availability
- Emerging data for allogeneic cell therapies[2] demonstrate potential for transformative impact and may address above challenges

Opportunity to deliver transformational efficacy

- Dramatically improve upon standard of care
  - **SLE:** LLDAS achievement – predictor for reduction of damage accrual
  - **LN:** Complete renal response (CRR)
  - **SSc:** High %CRISS, FVC stabilizatior
  - **IIM:** High %TIS
- Optimal outcome: drug-free remission

1. Mackensen Nature Medicine 2022 doi.org/10.1038/s41591-022-02017-5, Muller NEJM 2024 doi/full/10.1056/NEJMoa2308917, Muller ASH 2024 doi.org/10.1182/blood-2024-194525, Sheikh Arthritis Rheumatol. 2024
2. Yu Arthritis Rheumatol. 2024; Goulding Arthritis Rheumatol. 2024, Wang Cell 2024 doi.org/10.1016/j.cell.2024.06.027

CRISS: Composite Response Index for Clinical Trials in Early Diffuse Systemic Sclerosis

CENTURY THERAPEUTICS

CNTY-101 is a differentiated autoimmune disease treatment: Allogeneic iPSC CAR iNK cell therapy with Allo-Evasion™

Allogeneic iPSC

- Available “off-the-shelf”
- No patient apheresis required
- No manufacturing wait time
- Batch-to-batch consistency
- Platform enables lower COGs than donor-derived or autologous

NK cells

- Killing potency (≥ primary CAR-T) leads to deep B-cell depletion[1]
- Trafficking to secondary lymphoid tissues and marrow favors pathogenic B-cell targeting
- Short-lived, more predictable pharmacokinetics and pharmacodynamics
- Manageable safety profile, well-tolerated in ELiPSE-1

Allo-Evasion™

- Avoiding host immune rejection
- Ability to repeat dose without continued lymphodepletion
- Ability to re-treat, if needed

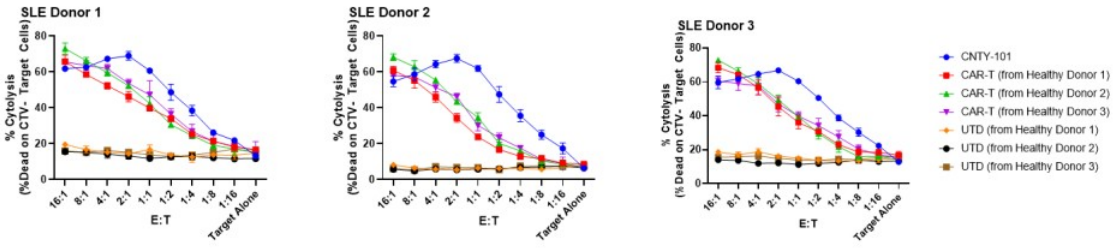
Tighter control over drug exposure:
B-cell depletion without prolonged B-cell aplasia

1. https://www.centurytx.com/wp-content/uploads/ASH_Chin_Natural-Killer-GD-Cells-Final.pdf

CENTURY THERAPEUTICS

In vitro studies show that CNTY-101 eliminates B cells with greater potency than primary CAR-T cells

CNTY-101 & CAR-Ts from Healthy Donors on B Cells Isolated from SLE Patients



24-hour cytolysis study of CNTY-101 against B-cells from SLE patients, compared to primary CAR-T cells derived from healthy donors

https://www.centurytx.com/wp-content/uploads/ASH_Chin_Natural-Killer-GD-Cells-Final.pdf
Isolated B cells or CD19+ target cells were co-cultured with CNTY-101 or primary CAR-T at several E:Ts in 96-well U bottom plates in NKCM with assay harvested at 24h. Assay plates were harvested and stained for Fixable Live/Dead. Cells were fixed and run on cytometer to determine Target+Dead Cell populations.
E:T: Effector:Target ratio, UTD: Untransduced donor cells as control

CENTURY THERAPEUTICS

CALiPSO-1 is a Phase 1 study of CNTY-101 in refractory B cell-mediated autoimmune diseases (NCT06255028)

Inclusion:

- Participants with moderate to severe SLE, LN, IIM, or dcSSc with treatment-resistant and active disease, after 2+ standard immunosuppressive therapies

Endpoints:

- Key endpoints: Safety and tolerability, disease activity measures per clinical and laboratory assessments
- Translational endpoints: PK, B-cell depletion, autoantibody decline

Clinical trial sites open for enrollment (USA); expansion to EU sites expected in 2025

SLE: Systemic Lupus Erythematosus; LN: Lupus Nephrits; IIM: Idiopathic inflammatory Myopathy; dcSSc: Diffuse Cutaneous Systemic Sclerosis
*Response assessment conducted at one month; does not gate Cycle 2 | DLT: Dose Limiting Toxicity

CENTURY THERAPEUTICS

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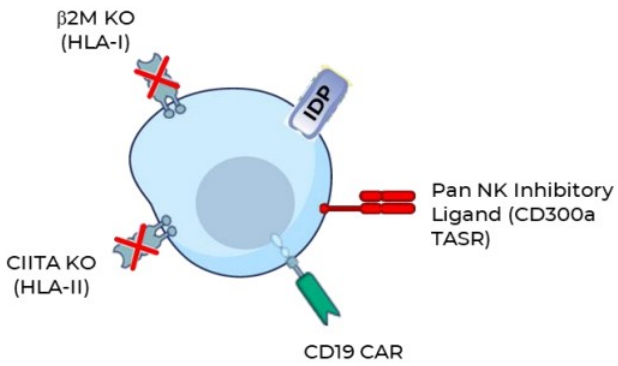
CNTY-308

CAR αβ-iT cell with Allo-Evasion™ 5.0

CNTY-308 is an iPSC-derived CD19-targeted CAR-iT with preclinical efficacy comparable to autologous CD19 CAR-T cells

CNTY-308



CD4+/CD8+ αβ iT-cell

- CD19-targeted CAR to target B-cells for cytotoxic depletio
  - 4-1BB and CD3z co-stim domain to stimulate expansio on target engagement
- Allo-Evasion™ 5.0 edits include protection from host T cel NK cell, and humoral response
- Displays characteristics of autologous CAR-T cells[1]
  - Highly proliferative upon target engagement
  - Secretes cytokines (e.g., IL-2, IFNγ, and TNFα)
  - Cytotoxic effector function rapidly eliminates tumor ce
  - Long-term persistence *in vivo*

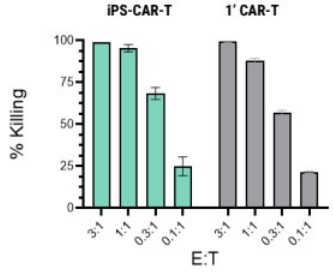
1. https://www.centurytx.com/wp-content/uploads/ASH_Heinze_iPSC-Derived-CD4-CD8-Final.pdf

CENTURY THERAPEUTICS

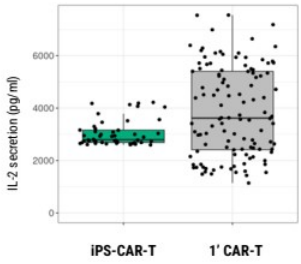
Century's iPSC-CAR-T cells display the functional characteristics of adult primary T cells: In vitro activity

Therapeutic efficacy requires:

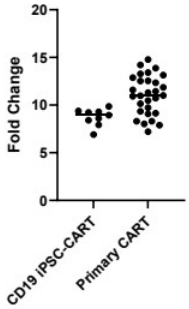
Cytotoxicity: Effector function



Cytokine (IL2) production



Cell expansion and persistence



Effective T cell therapies require the generation of iPSC-CAR-T cells with three key in vitro cell functions

https://www.centurytx.com/wp-content/uploads/ASH_Heinze_iPSC-Derived-CD4-CD8-Final.pdf

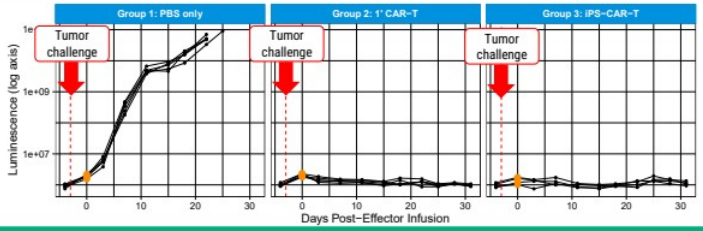
CENTURY THERAPEUTICS

In preclinical animal studies, Century iPSC-CAR-T cells show comparable activity to primary CAR-T cells

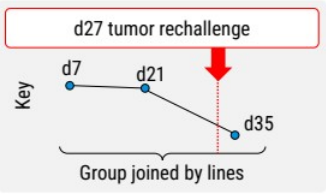
In vivo experimental details

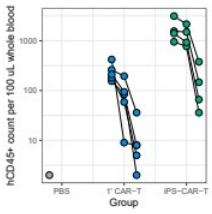
- Disseminated Nalm6 model (1e5 cells infused)
- Effectors added 3 days post-tumor infusion
- 1' CAR-T dose: 5e6 cells
- iPSC-CAR-T dose: 30e6 cells
- No added cytokine or small molecule support

Complete tumor control



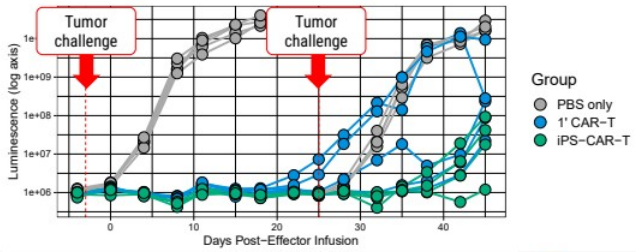
Measurable long-term persistence ≥1 mo





- iPSC-CAR-T persist 21 days post-infusion,
- iPSC-CAR-T detectable at day 35, 7 days post-tumor rechallenge (at day 28)

Cytotoxicity maintained upon re-challenge with engrafted cells



CENTURY THERAPEUTICS

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THERAPEUTICS

Platform: iPSC cell foundry

Century's robust pre-clinical pipeline has potential to address critical barriers confronting cellular therapies

Multiple iPSC-derived immune effector cells

- **iNK**
- **γδ iT**
- **αβ iT (CD4+, CD8+)**

Opportunity across multiple diseases

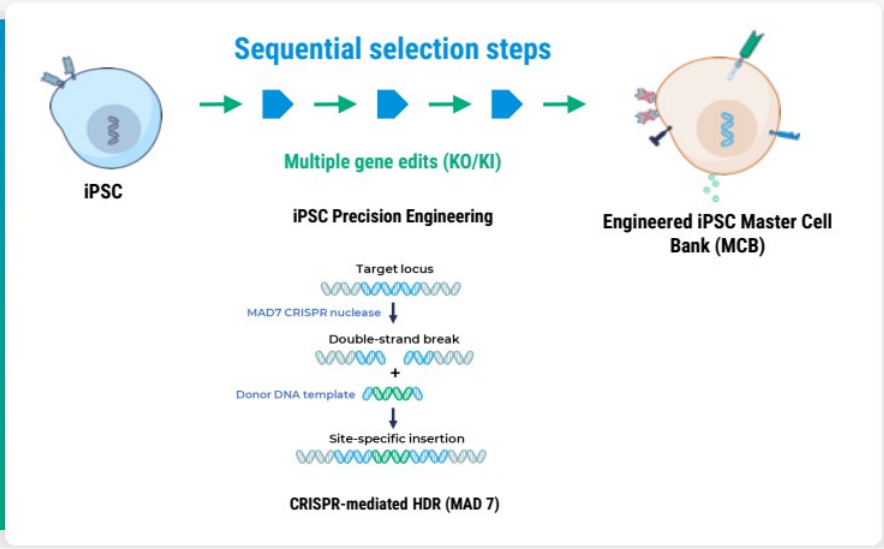
- **Next-generation therapies for oncology:**
  - CD19, CD19/22 CARs
  - Nectin-4 CAR
  - High-affinity Fc receptors (enable treatment with mAbs)
- **Key targets in autoimmune diseases**:
  - CD19 and BCMA

iPSC-enabled engineering solutions

- Cytokine engineering to **reduce or eliminate lymphodepletion**
- **Enhanced Allo-Evasion™** enables repeat dosing, extended drug exposure and potential for durable remissions
- **Resistance to suppressive cytokines** within the tumor

CENTURY THERAPEUTICS

Precision CRISPR MAD7-mediated sequential gene editing of iPSCs generates uniform product candidates



Advantages of Century's Platform

Precise CRISPR-mediated homology-directed repai
reduces off-target integration

Successive and efficient gene editing through iPSC platform **avoids risky multiplex modification** and structural variants

- Allo-Evasion™ edits
- Protein and cell engineering

Quality control through generation of homogenous establishes genomic **product integrity**

Manufacturing begins at the MCB, confirmed to be **from genetic aberrations**

1. MAD7 Nuclease: https://www.inscripta.com/wp-content/uploads/2023/03/Liu-et-al-2019-Nature-Communications.pdf

CENTURY THERAPEUTICS

Century platform and in-house manufacturing: Pathway to scalable, profitable cell therapy

Established in-house manufacturing from development to launch	Quality product at disruptive scale and cost of goods
• **Built-for-purpose** 53,000 ft^2 cGMP facility • Key leaders each with **1–2 decades** of cell therapy manufacturing expertise, from leading commercial cell therapies • In-house team facilitates **aligned priorities, learnings, faster product iteration** for efficiency, speed, and product quality • Builds and protects **proprietary know-how** • **Optionality** with redundant sites (in-house, active CDMO)	• **Consistency**: Control of manufacturing and single-donor master-cell-bank over product lifetime for batch-to-batch reproducibility • **Increased cell fitness:** Differentiated immune cells do not undergo excessive expansion cycles which often result in cell exhaustion • **Product homogeneity**: Clonal origin enables a well-characterized product • Potential to **manufacture at antibody-like scale**: Scalable platforms an optimized processes to maximize yield, reduce COGs, and meet deman

CENTURY THERAPEUTICS

Century Therapeutics is advancing next-generation iPSC-derived allogeneic NK and T cell therapy candidates for the treatment of cancer and autoimmunit

Differentiated pipeline based on iPSC and Allo-Evasion™ technology

- ✓ *Potential to overcome limitations of conventional allogeneic cell therapy*
- ✓ *Preclinical demonstration of CD4+/CD8+ $\alpha\beta$ iT cells with characteristics of primary T cells*

Encouraging preliminary clinical data from Phase 1 trial of CNTY-101 in R/R B-cell lymphomas

- ✓ *83% ORR at dose level 3B, with favorable safety profile*
- ✓ *Data supports the ability to re-dose in the presence of a restored endogenous immune system*
- ✓ *Study continuing with escalation to dose level 4B*

Expansion into additional autoimmune indications

- ✓ *CALiPSO-1 trial initiated in SLE, LN, IIM, and dcSSc participants*
- ✓ *CNTY-101 has differentiated profile in AID (allogeneic, iNK with Allo-Evasion™)*
- ✓ *Multiple pipeline opportunities in AID*

In-house manufacturing capabilities

- ✓ *Efficient, scalable manufacturing*

Multiple near-term milestones

Phase 1 ELiPSE-1 trial of CNTY-101 in B-cell malignancies

- Updated clinical data expected by mid-2025

Phase 1 CALiPSO-1 trial of CNTY-101 in B-cell mediate autoimmune diseases

- Enrollment of patients across indications

Pre-clinical pipeline prioritization

- Prioritized pipeline to be announced in 1Q25

Cash runway into 2H26

Ended FY24 with cash, cash equivalents, and investments of ~$220M (unaudited*)

*This estimate is unaudited and preliminary and actual results may differ due to the completion of our fiscal 2024 closing procedures. As such, this estimate should not be viewed as a substitute for our full audited financial statements prepared in accordance with U.S. generally accepted accounting principles.

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