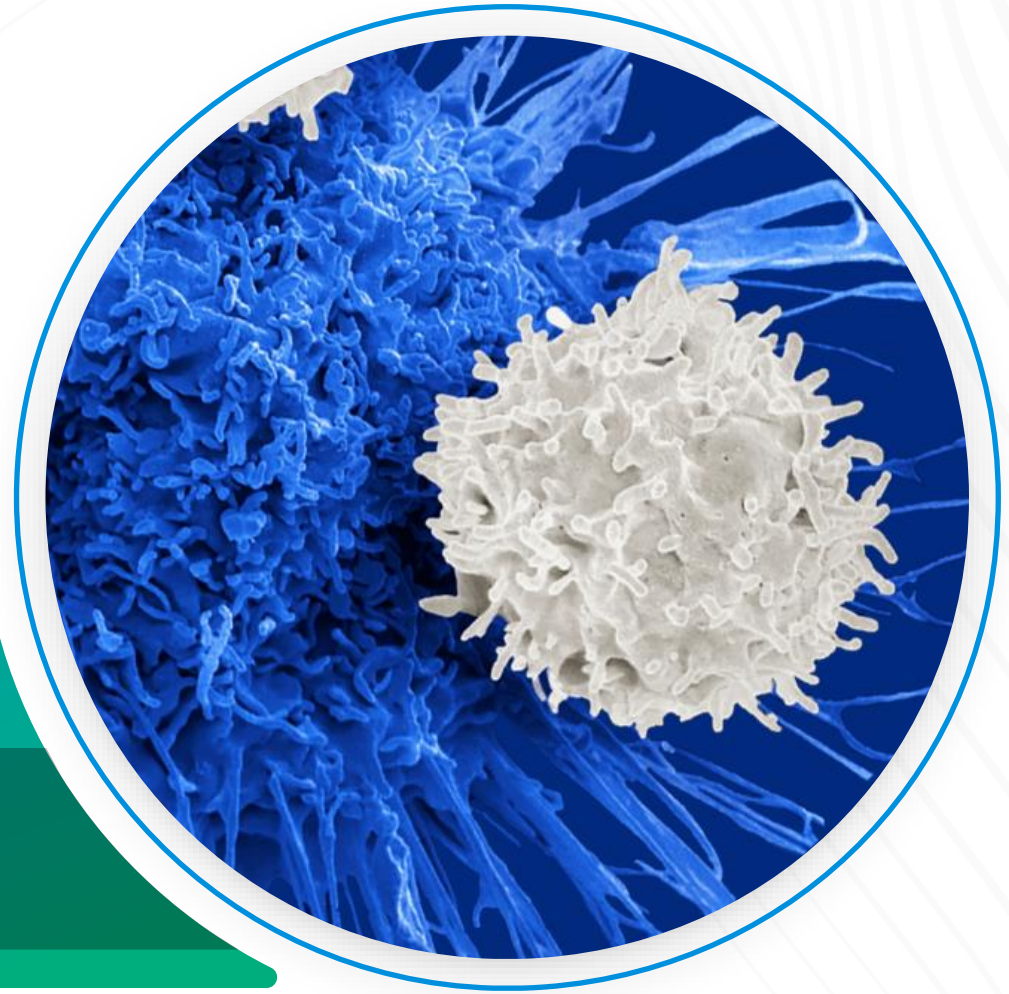
CENTURY THERAPEUTICS



Corporate overview

November 2024

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. All 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, statements 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 or 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 some of which are beyond our control, including, among others: our ability to successfully advance our current and future product candidates through development activities, preclinical studies, and clinical trials; our dependence on the success of our lead product candidate, CNTY-101; and our ability to progress CNTY-101 through our CALiPSO and ELiPSE Phase 1 clinical trials; our 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 not 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, scope 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 our 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: Building an industry-leading, next-generation allogeneic iPSC-derived cell therapy platform

Limitless Potential…

Foundational investments in iPSC technology, genetic editing, protein engineering, and manufacturing

Precision Design…

Progressing differentiated clinical programs based on Allo-Evasion™ technology in oncology and autoimmune diseases

Enduring Impact…

Well-capitalized into 2H 2026 to enable delivery on key milestones and clinical data

CENTURY
THERAPEUTICS

Overview of foundational platform technologies

Century's singular focus:

To deliver best-in-class iPSC-derived cell therapies

Century platform enables the incorporation of critical features we believe can only be realized via iPSC-derived cell therapies

Infinite replicative capacity of iPSCs

- Potential for **unlimited genomic engineering** via CRISPR editing
- Leverage **multiple advances** in synthetic biology **into a single product**

Single-cell cloning of engineered iPSC

- Enables **full characterization of clone** forming master cell bank
- Deep understanding of **cell function and safety**
- **Functional reproducibility** of the final drug product

Differentiation conditions for **multiple immune effector cells**

- NK cells
- CD4+ T cells
- CD8+ T cells
- γδ T cells

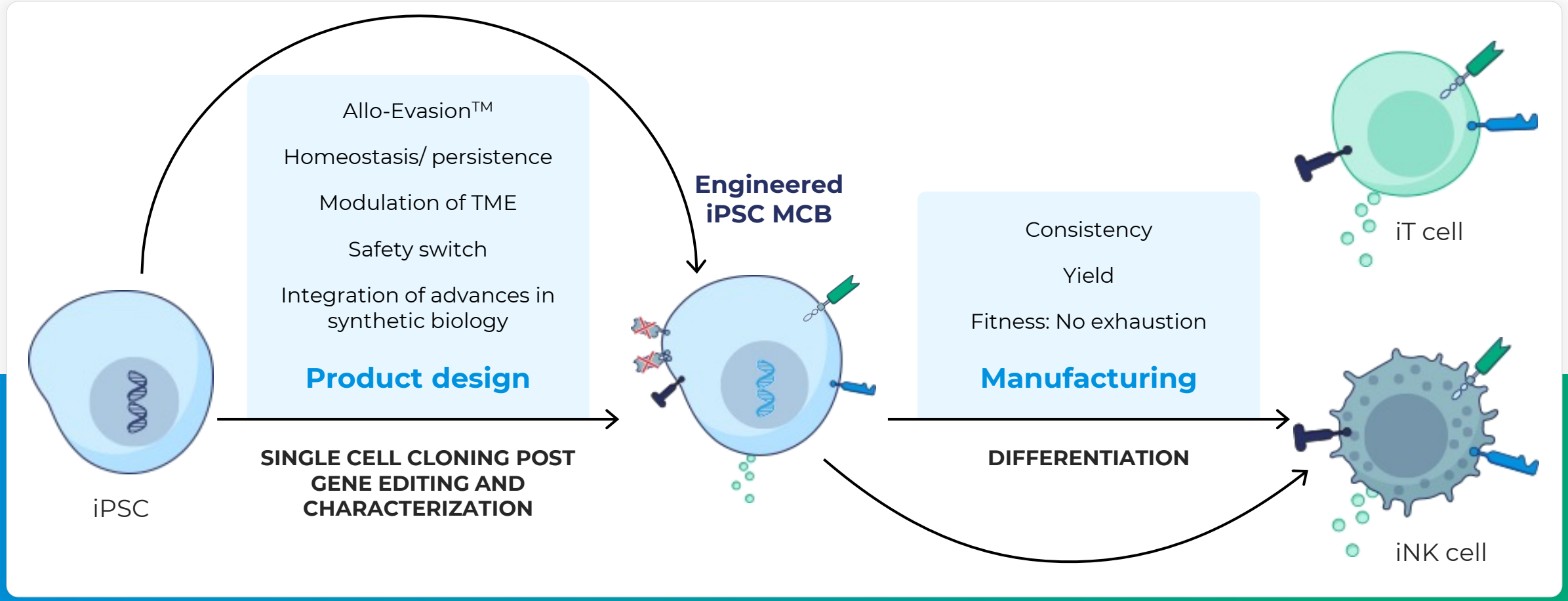
Large cell harvests from cell expansion across differentiation stages

- Decreased risk of cell exhaustion
- **Robust drug inventory,** potentially infinitely replenishable
- Path to **reduced cost of goods**

Production from a **master cell bank**, compared to donor-derived or autologous cell products, enables

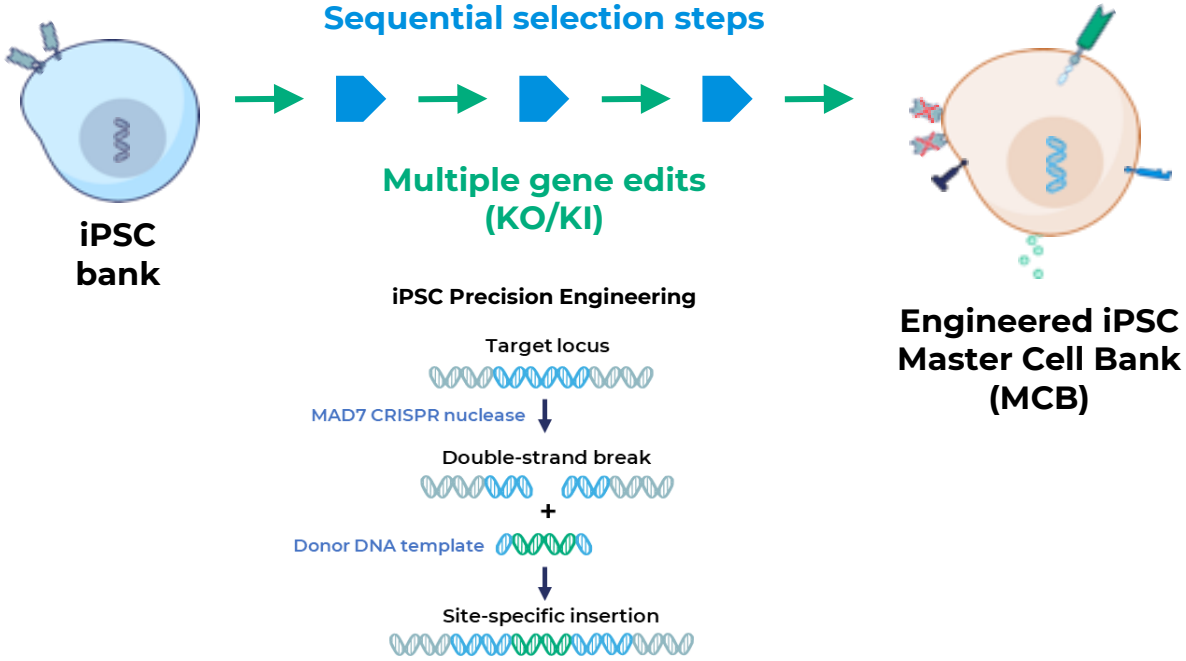
- **Larger batch sizes**
- **Reduced cost of goods**
- **Batch-to-batch consistency** with a single donor source

Century's next-generation allogeneic iPSC technology platform:
Versatility and unprecedented control



Rapid Integration of major advances in product functionality and manufacturability

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



Advantages of Century's Platform

Precise CRISPR mediated homology directed repair **reduces off-target integration**

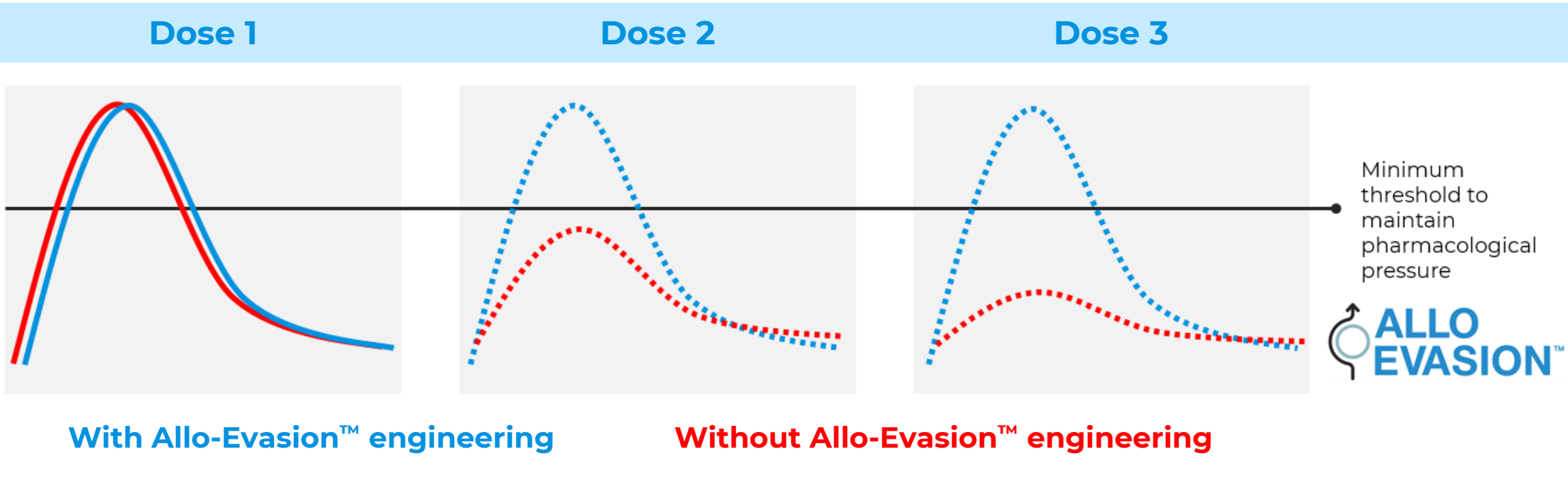
Stepwise and efficient gene editing **avoids risky multiplex modification** and structural variants

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

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

Potential to drive durable responses with engineering to resist immune rejection

Allo-Evasion™ edits + repeat dosing = potential greater durability



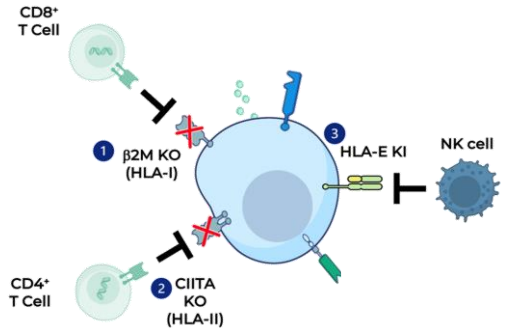
Next-wave of allogeneic cell therapies must solve for challenge of rejection

Advancing our leadership in Allo-Evasion™ technology

Continuous improvement in holistic immune protection designed to overcome major pathways of host vs. graft rejection

Allo-Evasion™ 1.0

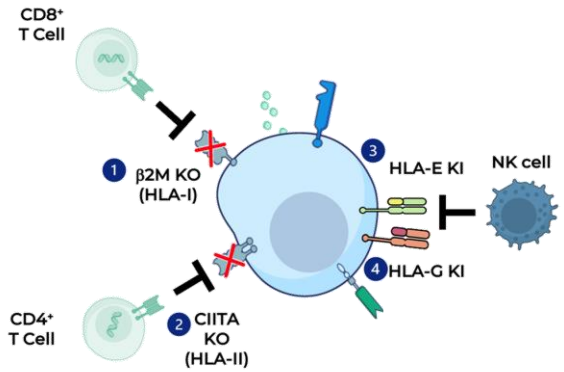
Core edits disarm host cells from eliminating therapy



- Deletion of β2M, a protein required to express HLA-I on the cell surface prevents recognition by CD8 T cells
- Knock out of CIITA eliminates HLA-II expression to escape elimination by CD4 T cells
- Knock-in of HLA-E prevents killing by NK cells

ALLO EVASION™

Allo-Evasion™ 3.0

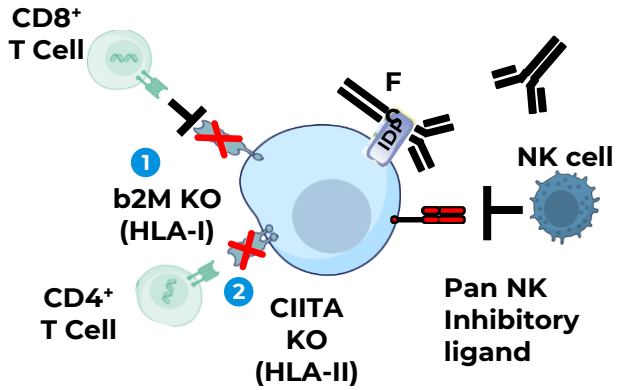


Allo-Evasion™ 1.0 edits plus the incorporation of:

- Knock-in of HLA-G improves protection against killing by NK cells

ALLO EVASION™

Allo-Evasion™ 5.0



- Deletion of β2M, a protein required to express HLA-1 on the cell surface prevents recognition by CD8 T cells
- Knock out of CIITA eliminates HLA-II expression to escape elimination by CD4 T cells
- Pan-NK inhibitory ligand to provide broader protection against killing by NK cells
- IgG degrading protease designed to protect against humoral immunity

ALLO EVASION™

Foundational investments in iPSC manufacturing

Established in-house manufacturing

- Century 53,000 ft^2 GMP facility
- Designed to produce multiple immune cell types
- Accelerates learnings and enables faster product iteration
- Two sites (FCDI GMP manufacturing, Century in-house manufacturing) provide optionality and maximizes flexibility

Developing fit-for-purpose products

- Increased process and product consistency
- Scalable platforms and optimized processes to maximize yield, reduce COGs, and meet demand
- Increased cell fitness, as cells do not undergo excessive expansion cycles which often result in cell exhaustion
- Homogeneity of the manufacturing process produces a product candidate that can be readily characterized

CENTURY THERAPEUTICS

Pipeline

Diversified pipeline spanning cell types and targets in cancer and autoimmune diseases

Product	iPSC Platform	Targets	Indications	Research	IND-enabling	Clinical			Collaborator
						P1	P2	P3	
Autoimmune diseases									
CNTY-101	iNK	CD19	B cell-mediated Autoimmune diseases	CALiPSO-1					
CNTY-108	iNK/γδ iT	CD19	Autoimmune diseases						
CLDE-308	αβ iT	CD19	Autoimmune diseases						
CLDE-361	αβ iT	BCMA	Myasthenia Gravis						
Hematologic and Solid tumors									
CNTY-101	iNK	CD19	B-Cell Malignancies	ELiPSE-1					
CNTY-102	γδ iT	CD19 + CD22	B-Cell Malignancies						
CLDE-308	αβ iT	CD19	B-Cell Malignancies						
CNTY-104	iNK/iT	Multi-specific	AML						Bristol Myers Squibb
CNTY-106	iNK/iT	Multi-specific	MM						Bristol Myers Squibb
CNTY-107	γδ iT	Nectin-4	Solid tumors						
Research	iT	Not disclosed	Solid tumors						
Research	iNK/iT	TBD	Hematologic and Solid tumors						

Autoimmune diseases Hematologic tumors Solid tumors

CENTURY
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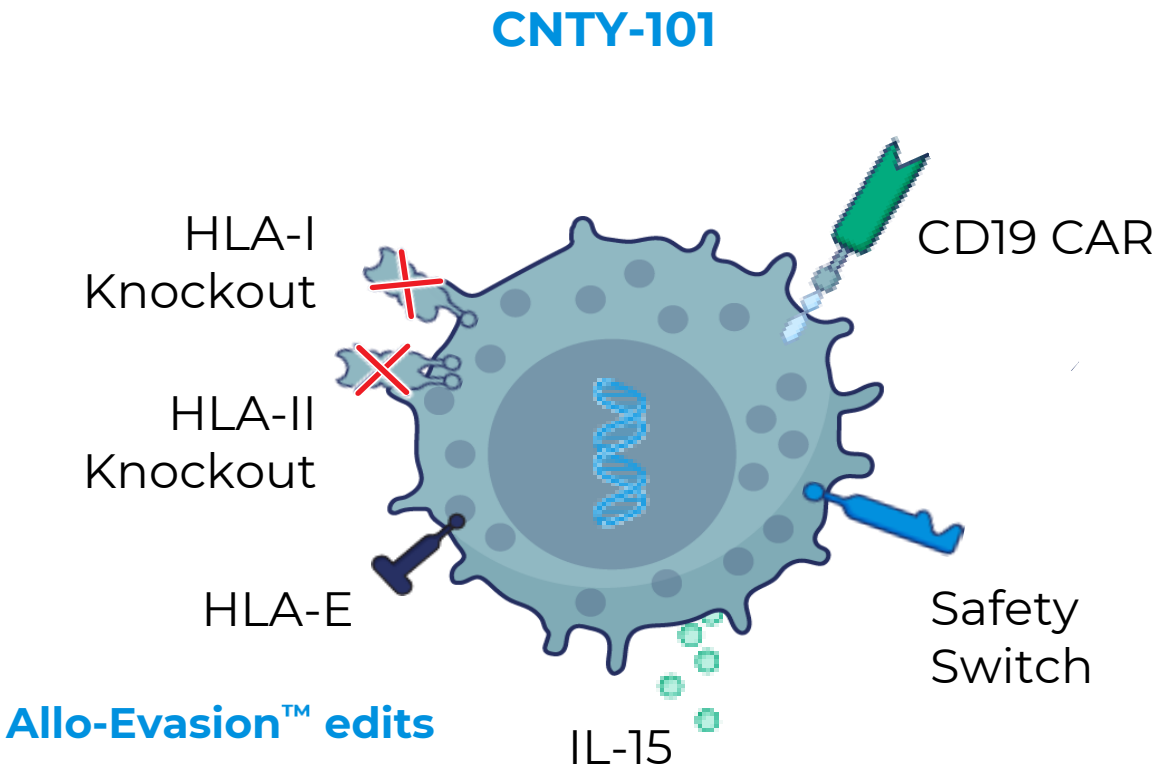
CNTY-101 Clinical programs

CNTY-101: Differentiated next-gen CD19 targeted product

Only cell therapy with six precision gene edits currently in the clinic

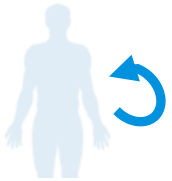


Delivering on our vision to change the cell therapy treatment paradigm

- Goal to improve durability, tolerability and ease of outpatient administration
- Potential to eliminate need for lymphodepletion with subsequent cycles of therapy
- First CD19-targeted agent to test durability benefit of repeat dosing enabled by Allo-Evasion™ edits

CNTY-101 in relapsed/refractory B-cell lymphomas

Aim: 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

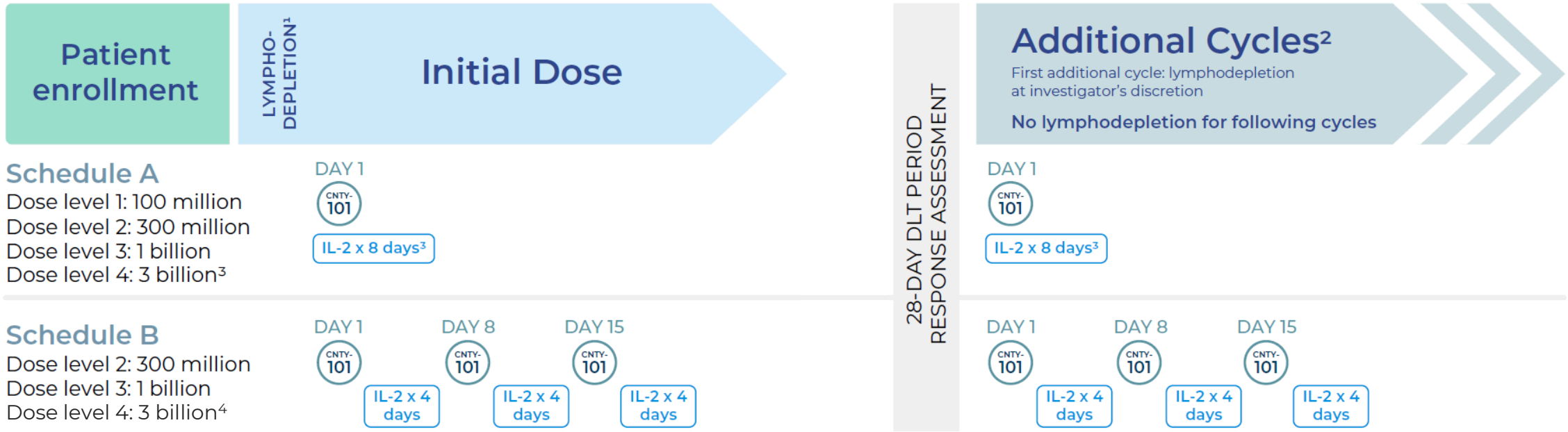
R/R: Relapsed or Refractory, NHL: Non-Hodgkin Lymphoma, CAR-T: Chimeric Antigen Receptor T cell therapy
[1]Cappell, Nature Reviews Clinical Oncology (2023)

CNTY-101: ELiPSE-1 (NCT05336409) Phase 1 BOIN design

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



1. Standard lymphodepletion regimen: fludarabine (30 mg/m/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

BOIN: Bayesian Optimal Interval,
DLT: Dose Limiting Toxicity;
IL-2: Interleukin-2 (dose: 3e6 IU; subcutaneous)

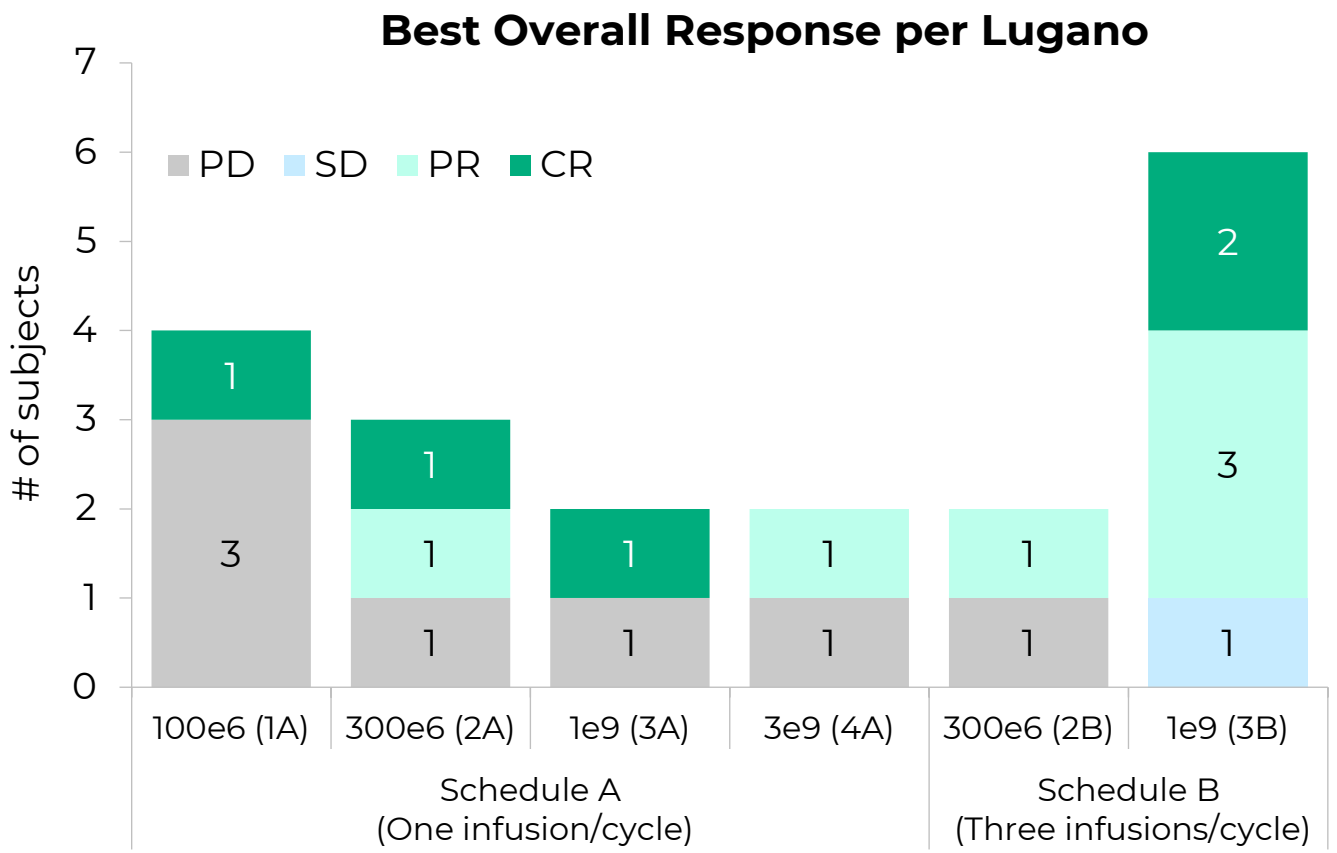
ELiPSE-1 enrolled heavily pre-treated R/R B-NHL patients

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)

[1] As of 15 October 2024 data snapshot date, data collection ongoing
[2] HRFL: High-risk Follicular Lymphoma; DLBCL: Diffuse large B cell Lymphoma; MZL: Marginal Zone Lymphoma; MCL: Mantle Cell Lymphoma

CNTY-101 clinical data snapshot

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

As of 15 October 2024, data snapshot date, data collection ongoing, efficacy based on Lugano criteria | CR: Complete Response, ORR: Overall Response Rate, DLTs: Dose Limiting Toxicities, CRS: Cytokine Release Syndrome, ICANS: Immune Effector Cell-Associated Neurotoxicity Syndrome, CAR: Chimeric Antigen Receptor | 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); n=19 total pts evaluable for efficacy, 58% BoR median follow up 3.34 months (range 0.5-18.8 months)

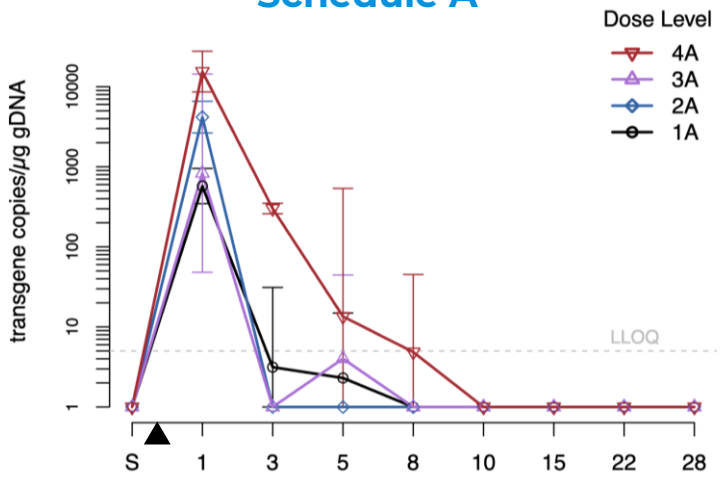
Increasing CNTY-101 exposure with dose and schedule

- **Extended persistence in circulation at dose level 4A (1 x 1e9 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**

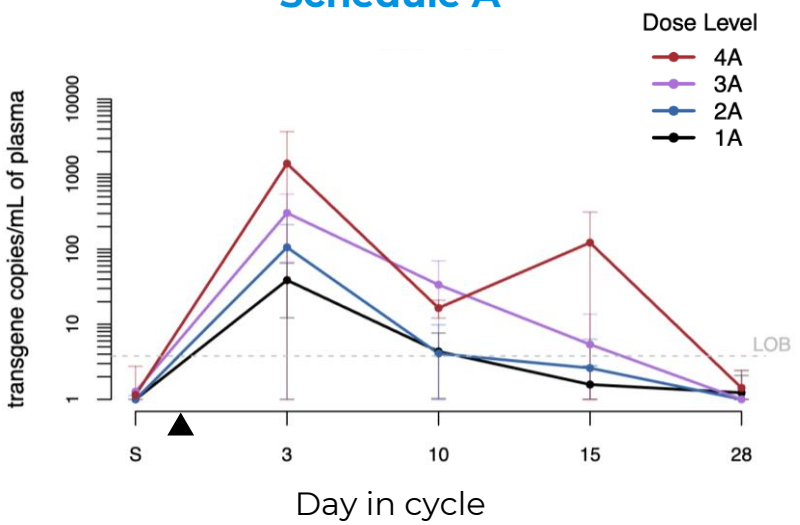
PBMC genomic DNA

Plasma cell-free DNA

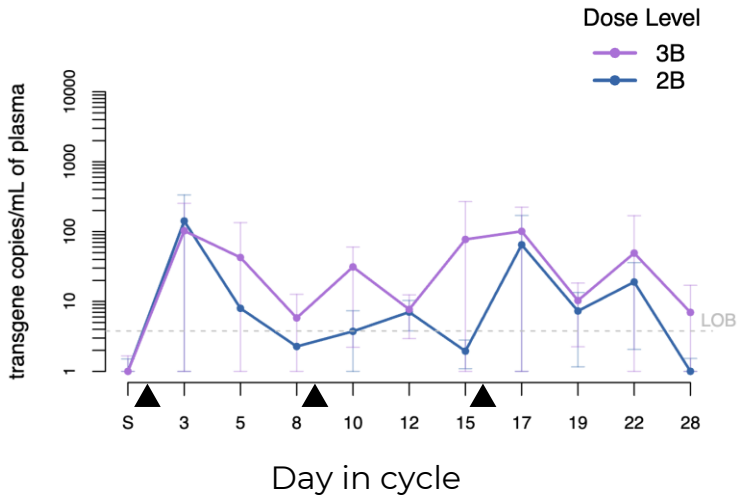
Schedule A



Schedule A



Schedule B



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

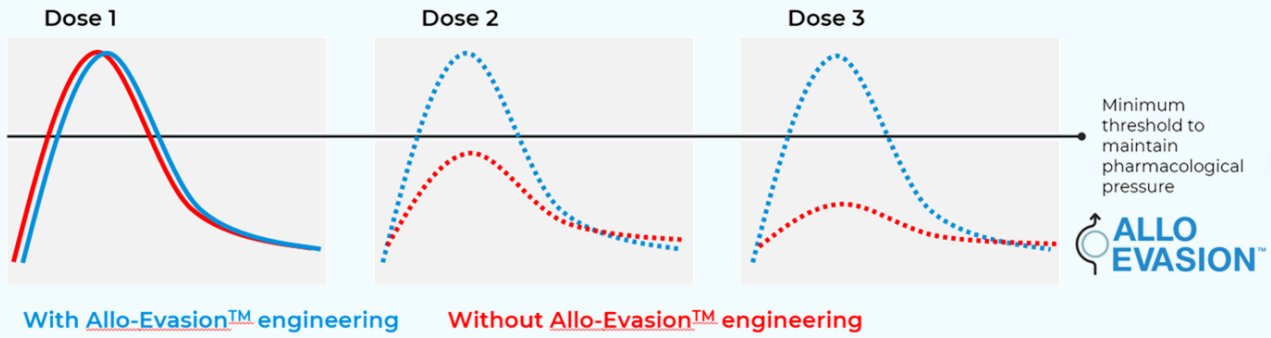
Error bars show mean ± SD (due to log10 scale, low values are truncated at 1). Positivity values are determined to be significantly above LOB using two sample Poisson test, $p < 0.05$. All LDC+ cycles are shown. Black triangles indicate infusions. S: Screen, LOB: Limit of Blank.

Translational data available as of Oct 28, 2024; Schedule A n=11, Schedule B n=8

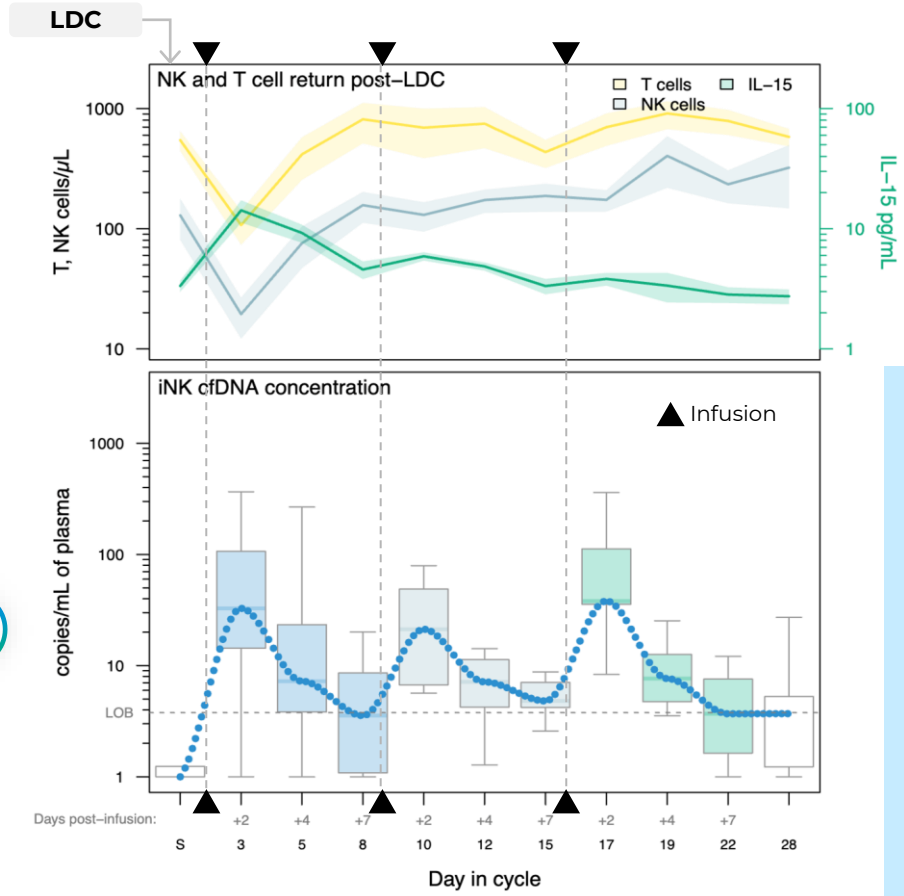
Enabled with Allo-Evasion™, CNTY-101 infusions in dose level 3B showed similar exposure in the presence or absence of endogenous lymphocytes

- **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



Lymphocyte counts and PK profile



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

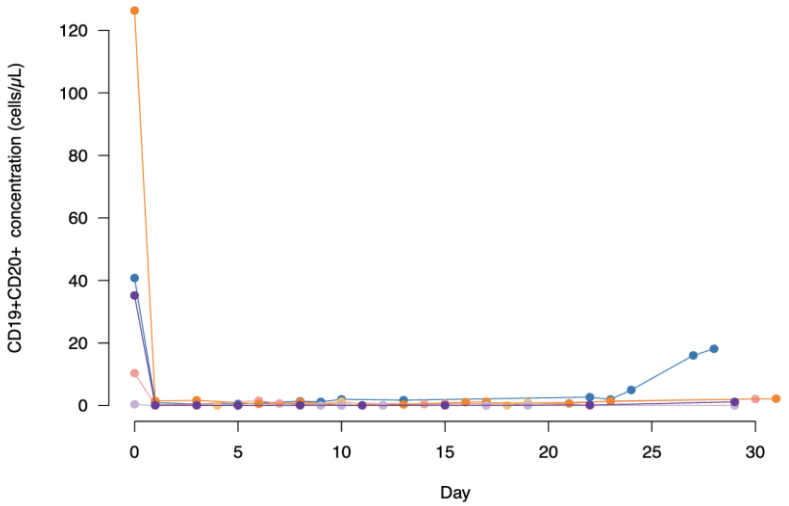
Translational data available as of Oct 28, 2024

CNTY-101 treatment demonstrates rapid B-cell depletion and was associated with a 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

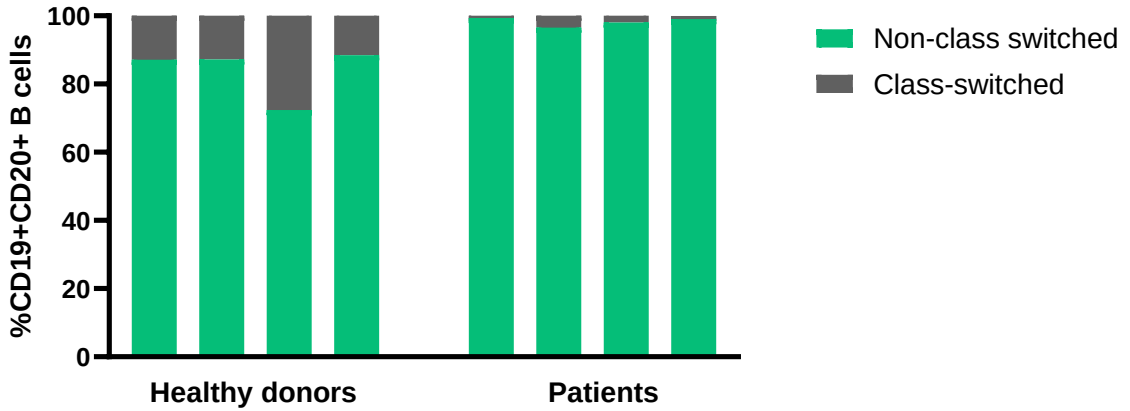
- Rapid and effective depletion of circulating B cells observed in the initial cycle
- A reduction of class-switched phenotypes in re-emergent B cells has been associated with SLE responses to CD19-targeted cell therapies, further supporting use of CNTY-101 in the CALiPSO-1 study

B-cell depletion



Graphs show data from the initial cycle of all subjects who had B cell counts of 0.25 cell/ µL 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-cell profile



Data shows proportion of non-class switched (IgD+, IgM+ or IgD+IgM+) or switched (IgD-IgM-) circulating B cells (CD19+ CD20+) in healthy 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+ CD27-, data not shown).

Translational data available as of Oct 28, 2024

ELiPSE-1 initial data: Key takeaways

Heavily pretreated and refractory patient population treated in first-in-human dose escalation trial, including 45% 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

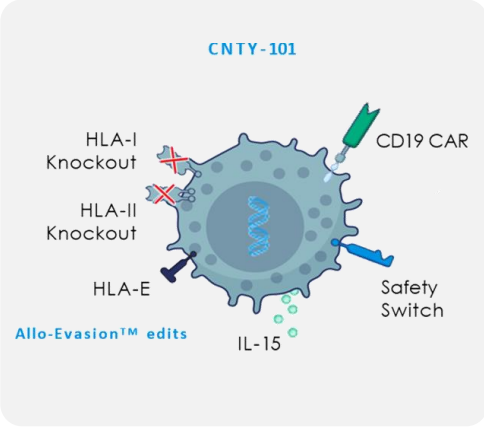
Dose dependent increase in CNTY-101 exposure observed

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

CNTY-101's favorable initial safety profile, encouraging early efficacy and PK/PD data support study continuation

CR: Complete Response

Key differentiators of CNTY-101 in autoimmune disease treatment



CNTY-101: CD-19 targeted iNK cell therapy with 6 precision gene edits including Allo-Evasion™ technology

- Ph1 CALiPSO-1 trial in B cell-mediated autoimmune diseases (Systemic Lupus Erythematosus, Lupus Nephritis, Idiopathic Inflammatory Myopathy & Diffuse Cutaneous Systemic Sclerosis) initiated in early 3Q24
- Currently being studied in Ph1 ELiPSE-1 trial in R/R NHL

Key differentiators in AID: (1) Allogeneic (2) NK cells (3) Allo-Evasion™

(1) Allogeneic

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

(2) NK cells

- Killing potency ≥ primary CAR-T
- Trafficking to secondary lymphoid tissues and marrow favors pathogenic B-cell targeting
- Limited *in vivo* expansion

(3) Allo-Evasion™

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

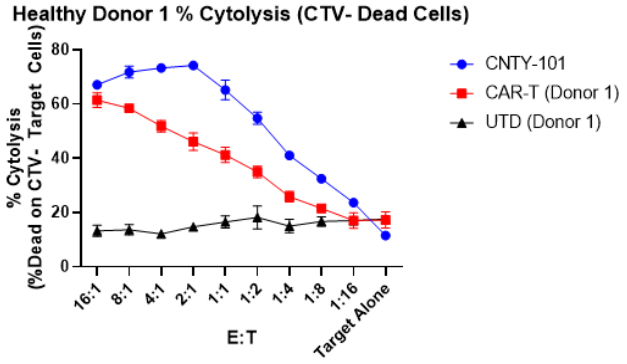
Tighter control over drug exposure:
B-cell depletion without prolonged B-cell aplasia

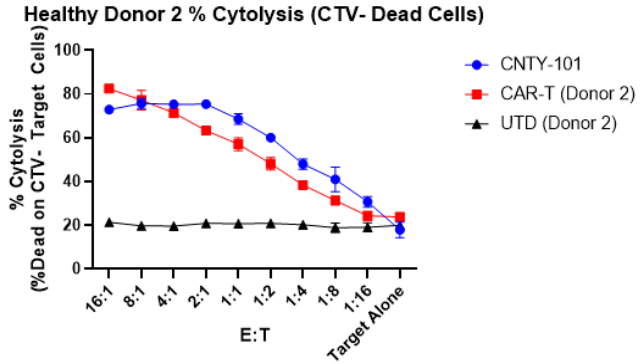
CNTY-101: Potential to drive B-cell depletion with tighter control over drug exposure

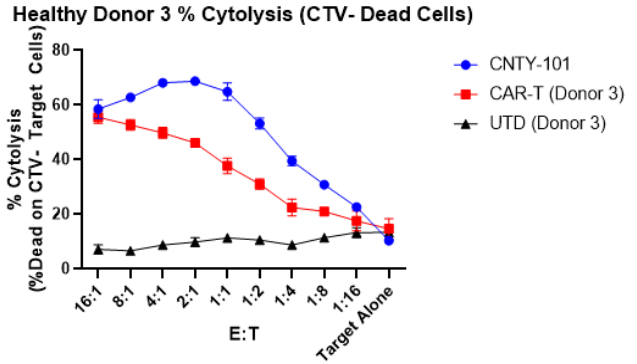
More potent than primary CAR-T at B-cell killing of SLE patient cells in preclinical comparison

CNTY-101 more potent than primary CAR-T cells at B-cell killing at 24 hours in preclinical comparison

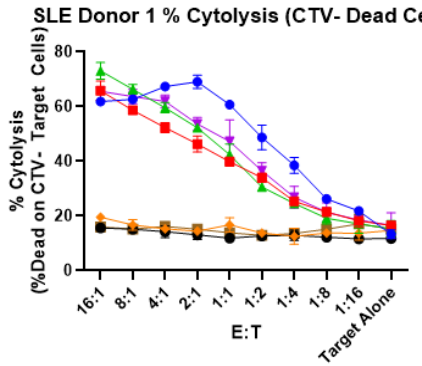
CNTY-101 & Autologous CAR-T on B Cells Isolated from Healthy Donors

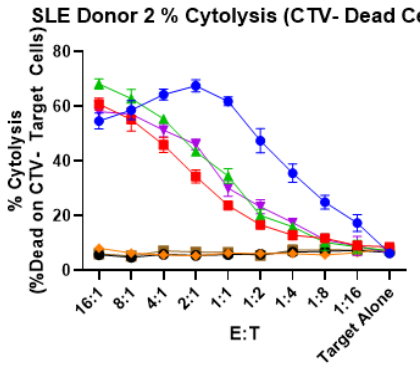


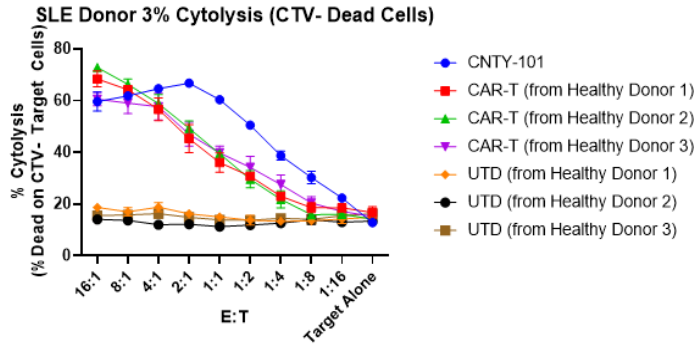




CNTY-101 & CAR-Ts from Healthy Donors on B Cells Isolated from SLE Patients





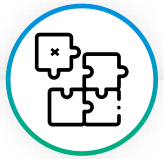


Isolated B cells or CD19+ target cells were co-cultured with CNTY-101 or primary CAR-T at several E:Ts in 96-well U bottom plates in NKCM with assay harvested at 24h.
Assay plates were harvested and stained for Fixable Live/Dead. Cells were fixed and run on cytometer to determine Target+Dead Cell populations.
E:T: Effector: Target, UTD: Untransduced Donor

Opportunity in moderate to severe autoimmune indications to provide long term, drug free remission

Estimated US prevalence of SLE 210-340K[1] including LN, SSc >80K[2], IIM >60K[3]

- Abnormal B cell function and autoantibody production are central to disease pathogenesis
- Major causes of morbidity and mortality involve multiple vital organ systems
  - Renal, pulmonary, and cardiovascular



Despite approved treatments, significant unmet need remains

- Current treatments fail to significantly impact morbidity in many patients with moderate to severe disease
- Chronic treatment with broad-acting immunosuppressives is standard
- Treatment toxicity and disease flares remain common

Autologous anti-CD19 CAR-T cell therapies show potential for promising efficacy[4]

- Challenges remain due to potential exposure to CRS and ICANS, product availability, and long-term risks including B-cell aplasia

1. Izmirly 2017, Duarte-Garcia-2022, Lim 2014, Dall'Era 2017. Approximately 40% of SLE patients have Lupus Nephritis
2. Fan 2020, Bairkdar 2021
3. Smoyer-Tomic 2012, Bernatsky 2009
4. Mackensen Nature Medicine 2022 and Muller NEJM 2024

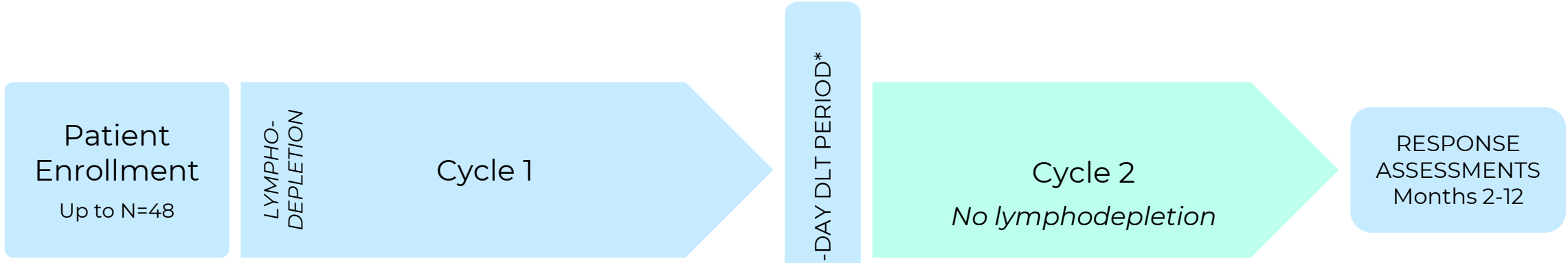
CNTY-101: CALiPSO-1 (NCT06255028) refractory B cell-mediated autoimmune diseases Phase 1 study

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



Schedule

- Dose level: 1000e6

*Response assessment conducted at one month; does not gate Cycle 2 DLT: Dose limiting toxicity

CENTURY
THERAPEUTICS

Discovery programs

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-gen 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

Corporate position & upcoming milestones

Advancing next-generation iPSC-derived allogeneic NK and T cell therapy candidates for the treatment of cancer and autoimmunity

Differentiated pipeline based on Allo-Evasion™ technology

- ✓ *Potential to overcome limitations of conventional allogeneic cell therapy*

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 and LN; amended to include additional cohorts of IIM & dcSSc participants*
- ✓ *CNTY-101 has differentiated profile in AID (allogeneic, iNK with Allo-Evasion™)*
- ✓ *Multiple pipeline opportunities in AID*

In-house manufacturing capabilities

- ✓ *Ability to accelerate learnings and enable faster product iteration*

Multiple near-term catalysts

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 mediated autoimmune diseases

- Enrollment of patients across indications

Pre-clinical pipeline prioritization

- Conclusion of review expected in 1Q 2025

Cash resources

Cash runway into 2H 2026

Ended 3Q 24 with cash, cash equivalents, and investments of $244.7M

Century Therapeutics: Building an industry-leading, next-generation allogeneic iPSC-derived cell therapy platform

Limitless Potential…

Foundational investments in iPSC technology, genetic editing, protein engineering, and manufacturing

Precision Design…

Progressing differentiated clinical programs based on Allo-Evasion™ technology in oncology and autoimmune diseases

Enduring Impact…

Well-capitalized into 2H 2026 to enable delivery of key milestones and clinical data