Corporate Presentation

January 2024

Sana Biotechnology®

Cautionary Note Regarding Forward-Looking Statements

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For a detailed discussion of the risk factors that could affect the Company's actual results, please refer to the risk factors identified in the Company's SEC reports, including its Quarterly Report on Form 10-Q dated November 8, 2023. Except as required by law, the Company undertakes no obligation to update publicly any forward-looking statements for any reason.

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Changing the Possible for Patients

Sana's hypoimmune technology goal is to overcome allogeneic rejection

- HIP technology provides foundation for potential multiple drugs across many therapeutic areas

Begin 2024 with four clinical programs treating seven diseases

- SC291 oncology – NHL and CLL
- SC291 B-cell mediated autoimmune – lupus nephritis, extrarenal lupus, and ANCA-associated vasculitis
- SC262 oncology – r/r NHL, initially in CD19 CAR T failures
- HIP primary islet cells in patients with type 1 diabetes

Pipeline positioned to deliver additional clinical data over time

- Regenerative medicine: SC379 (CNS disorders) and SC451 (type 1 diabetes)
- Hypoimmune allogeneic CAR T cells: SC255 (BCMA) and beyond

Balance sheet allows potential for multiple data readouts

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Sana pipeline positioned to deliver meaningful clinical data

PRODUCT CANDIDATE	MECHANISM	INDICATIONS	PRECLINICAL IND-ENABLING	PHASE 1	PHASE 2/3	SANA'S RIGHTS
Oncology						
SC291	CD19-directed allo CAR T	NHL	ARDENT			WW
SC291	CD19-directed allo CAR T	CLL	ARDENT			WW
SC262	CD22-directed allo CAR T	NHL (CD19 failures)	VIVID			WW
SC255	BCMA-directed allo CAR T	MM				WW
B-cell Mediated Autoimmune Diseases						
SC291	CD19-directed allo CAR T	LN	GLEAM			WW
SC291	CD19-directed allo CAR T	ERL	GLEAM			WW
SC291	CD19-directed allo CAR T	AAV	GLEAM			WW
SC291	CD19-directed allo CAR T	Other indications				WW
Regenerative Medicine						
UP421	HIP primary islet cells[1]	T1D				WW
SC451	Stem-cell derived pancreatic islet cells	T1D				WW
SC379	Glial progenitor cells	HD, PMD, SPMS				WW

[1]Investigator sponsored trial.
Abbreviations: AAV, ANCA-associated vasculitis; CLL, chronic lymphocytic leukemia; ERL, extrarenal systemic lupus erythematosus; HD, Huntington's disease; LN, lupus nephritis; MM, multiple myeloma; NHL, non-Hodgkin lymphoma; PMD, Pelizaeus-Merzbacher Disease; SPMS, secondary progressive multiple sclerosis; T1D, type 1 diabetes; WW, worldwide.

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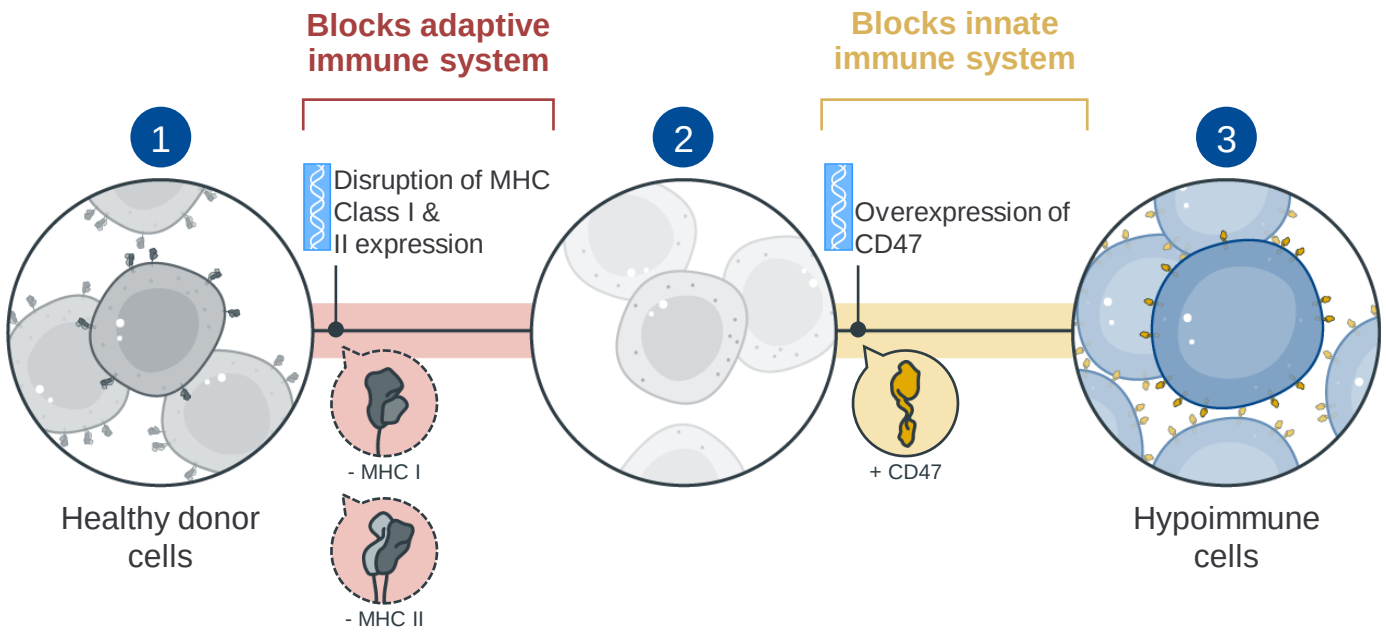
Overcoming allogeneic immune rejection has been key limitation in transplant and cellular medicine

Allogeneic cell rejection

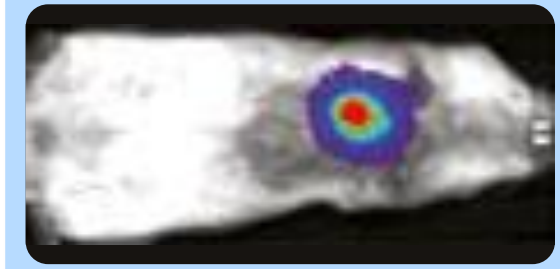
- ~75 years of transplants – immune rejection remains the largest problem
- Lifelong immunosuppression is current standard
- Genome modification efforts to date have generally been incomplete
- Autologous therapies have limited scalability and are only available for a small number of cell types

Sana's hypoimmune approach



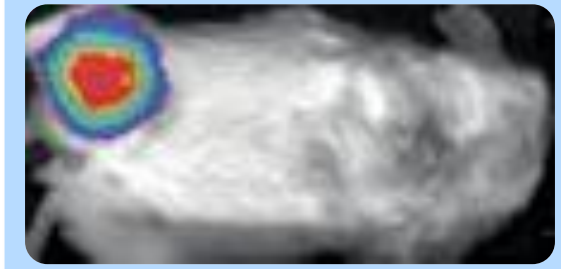
Current clinical platform with multiple ongoing approaches in research phase.

HIP-modified cells successfully transplanted in allogeneic models across various species and cells types



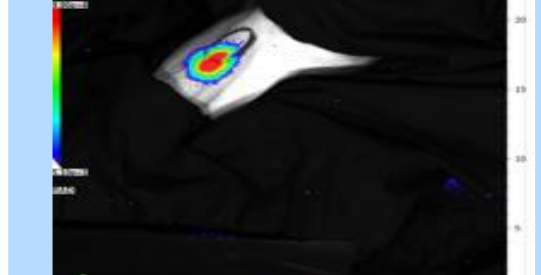
Mice

- Mouse iPSCs
- Mouse iPSC-derived endothelial cells
- Mouse iPSC-derived smooth muscle cells
- Mouse iPSC-derived cardiomyocytes



Humanized mice

- Human iPSCs
- Human iPSC-derived endothelial cells
- Human iPSC-derived smooth muscle cells
- Human iPSC-derived cardiomyocytes
- Human iPSC-derived pancreatic islet cells
- Human donor-derived islet cells
- Human donor-derived CAR T cells



NHPs

- NHP iPSCs (16 weeks follow-up)
- NHP donor-derived islets (40 weeks follow-up)
- NHP iPSC-derived cardiomyocytes
- NHP iPSC-derived retinal pigment epithelium (RPE) cells

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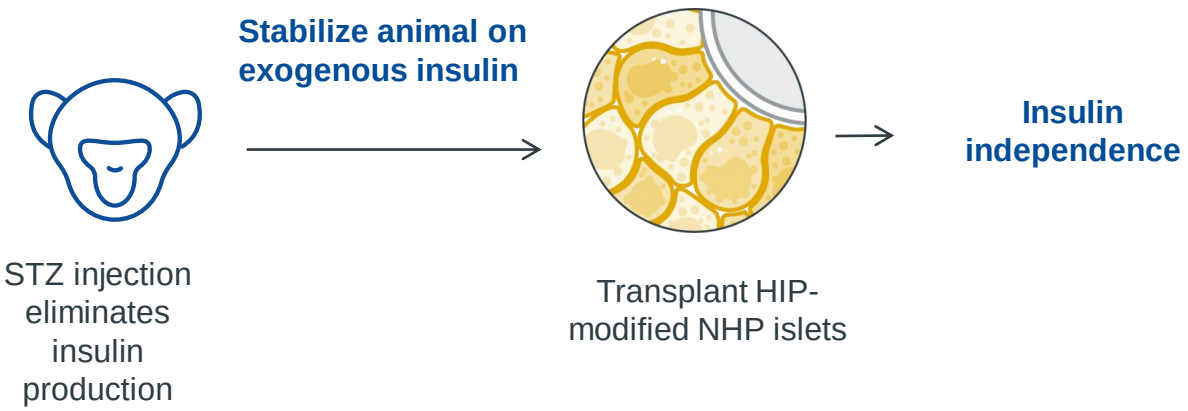
HIP-modified allogeneic islet cells to control glucose in a type 1 diabetic NHP model

Type 1 diabetes is a disease of missing pancreatic beta cells



Study Design (N=1)

- NHP treated with STZ
- Glucose stabilized with exogenous insulin
- Allogeneic NHP primary islet cells isolated and HIP-modified
- Cells injected intramuscularly without immunosuppression

Key goals of study

- Demonstrate survival and function of HIP-modified allogeneic islet cells in diabetic NHP without immunosuppression
- Demonstrate long-term glucose normalization in diabetic NHP without exogenous insulin or immunosuppression
- Demonstrate the principle of graft ablation/safety switch with anti-CD47 antibody

Abbreviations: NHP, non-human primate; STZ, Streptozotocin.

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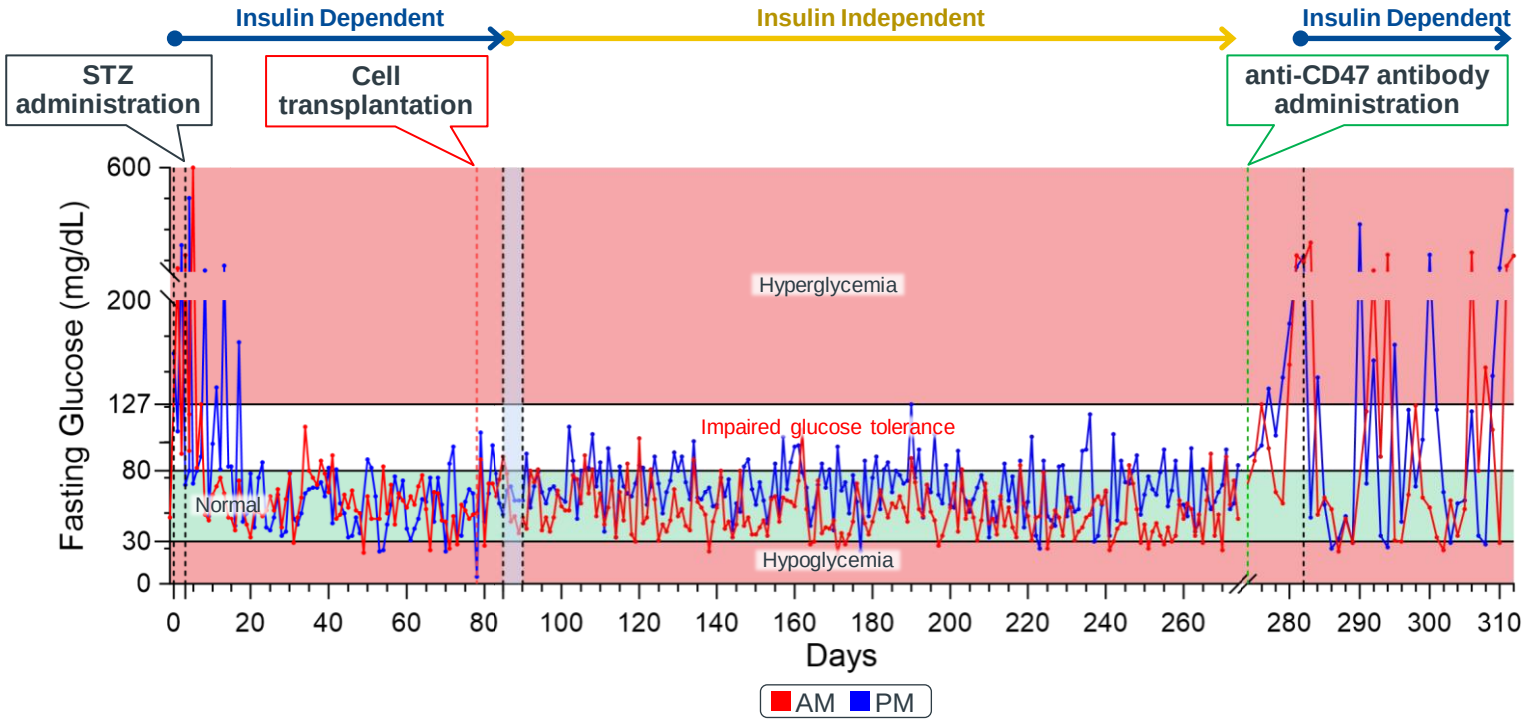
Survival and function of allogeneic hypoimmune pancreatic islet cells in diabetic NHP 6 months without immunosuppression

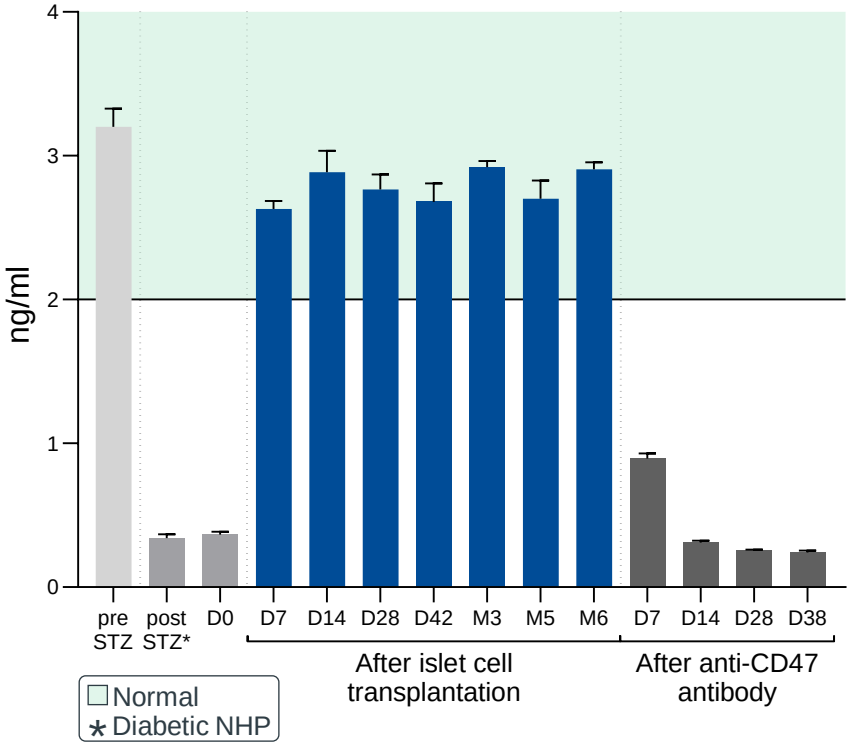
Study Design (N=1)

- NHP primary islet cells isolated and HIP-modified
- Cells injected intramuscularly into a diabetic, allogeneic NHP without immunosuppression

Fasting glucose

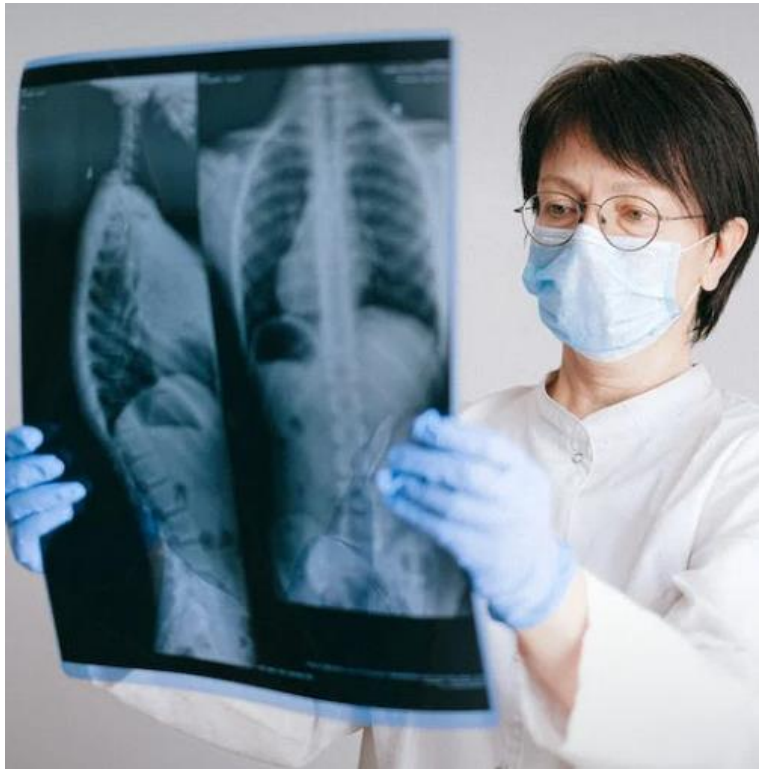


Serum C-peptide

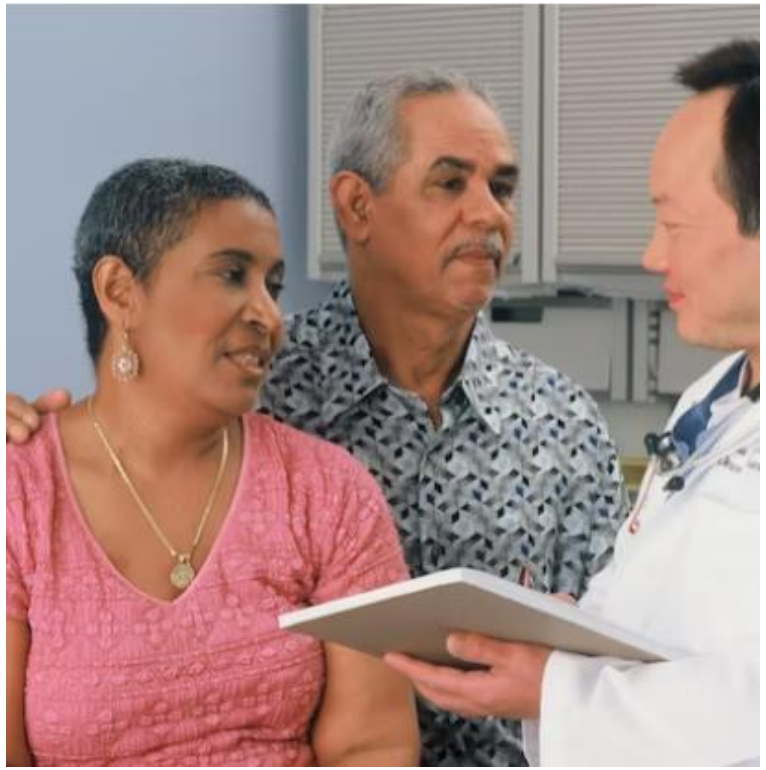


Near-term opportunities to apply HIP modifications to validated mechanisms with unmet need

Blood cancers:
>100,000 patients/year[1,2]



B-cell mediated autoimmune diseases:
>5 million patients[3]



Type 1 diabetes:
>8 million patients[4]

[1]Avezbakiyev et al. *Blood*. 2022
[2]Durie et al. *The Oncologist*. 2020
[3]NIH Autoimmune Diseases Coordinating Committee: Autoimmune Diseases Research Plan, October 2017, U.S.
[4]t1dindex.org

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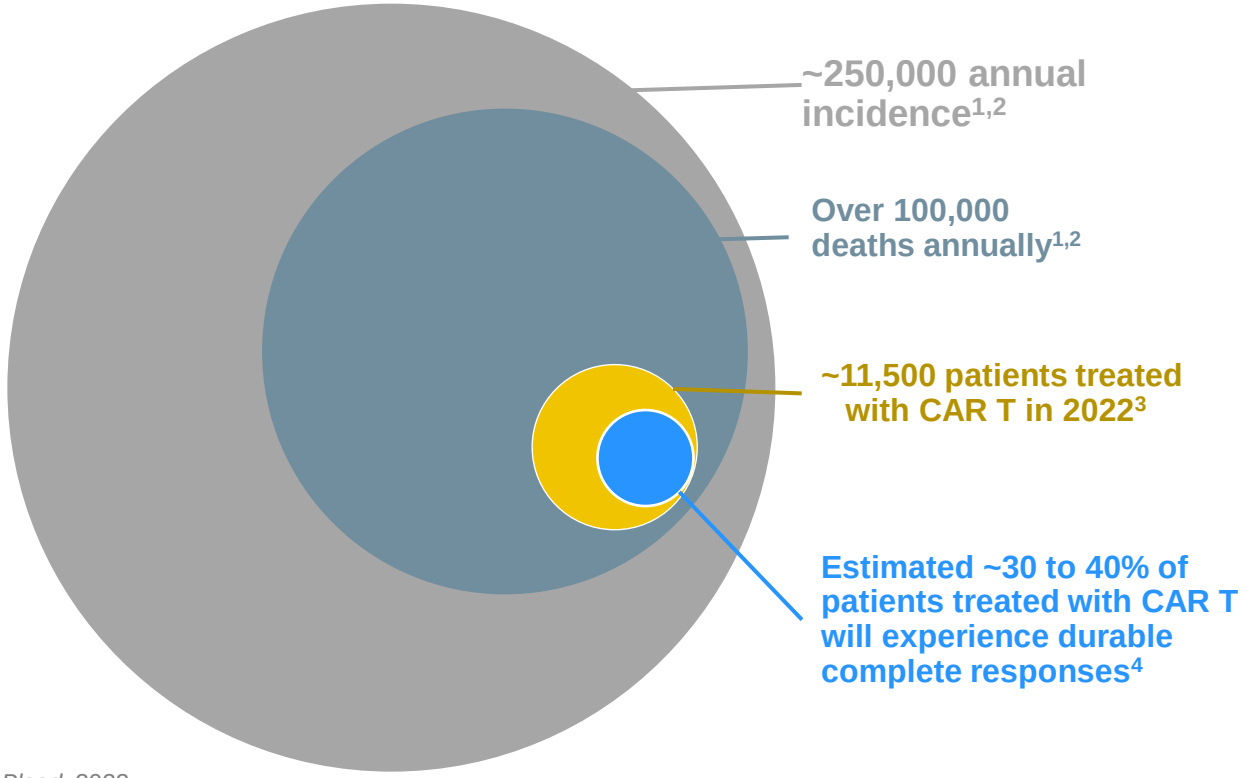
Hematologic cancers continue to have a high unmet need

High mortality in lymphoma and myeloma in the US and EU5



[1]Avezbakiyev et al. *Blood*. 2022
[2]Durie et al. *The Oncologist*. 2020
[3]Clarivate DRG NHL and MM Market Forecast Nov 2022; internal analysis of secondary EPI data.
[4]Scivida 2022 NHL Factbook
Abbreviations: EU5, France, Germany, Italy, Spain, UK

Challenges

- Autologous CAR T cell scalability
- Many patients fail CAR T treatment
- Allogeneic CAR T cell immune rejection limits persistence and efficacy

Opportunity

- Known targets
- Known efficacy and safety bar

Sana's HIP CAR T platform can address challenges and exploit opportunities

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Defining success for SC291 in oncology

Understanding levels of evidence as data mature

1 **Does SC291 evade allogeneic immune rejection?**

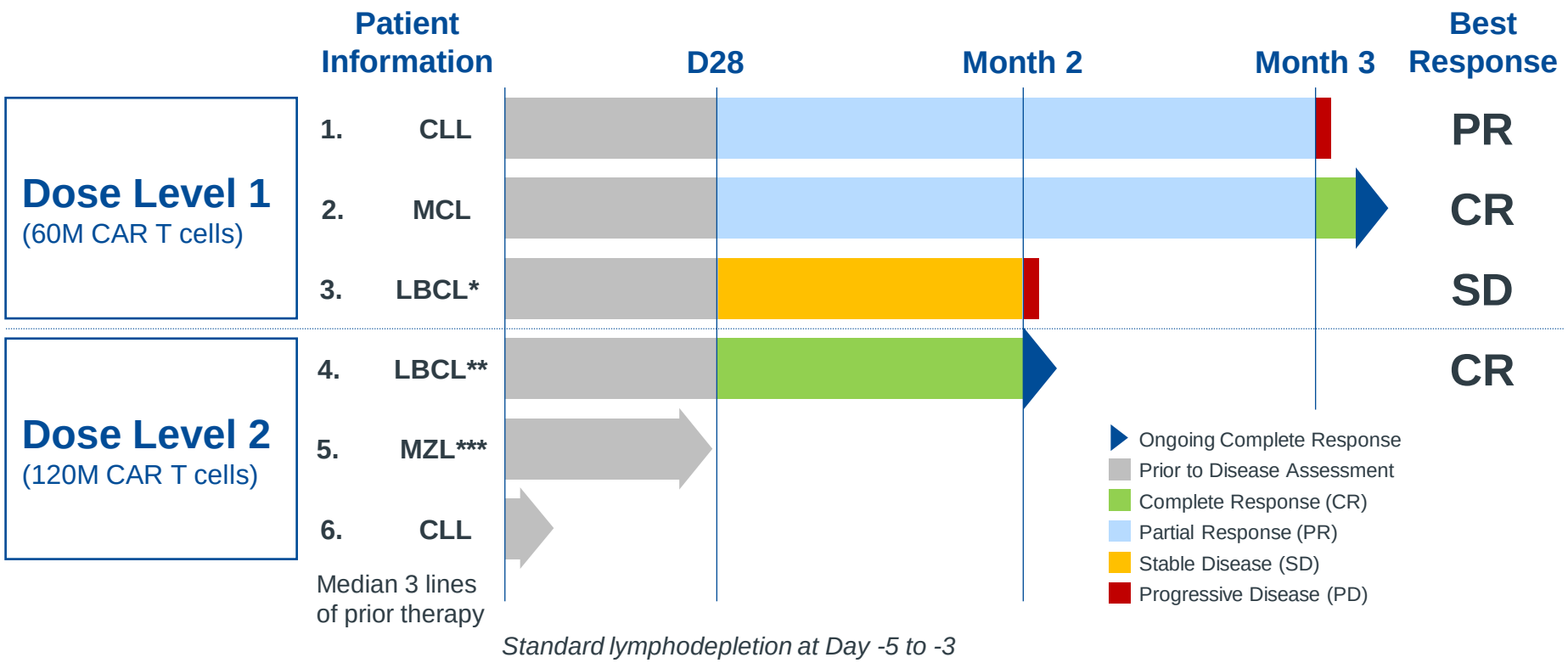
2 **Do we make great T cells?**

3 **How do early responses translate into durable CRs?**

4 **Can we make the drug from multiple donors with a consistent and predictable safety and efficacy profile?**

ARDENT: 3 of 4 evaluable patients had at least a partial response, with 2 ongoing complete responses

6 patients treated to date; dose escalation ongoing



Safety

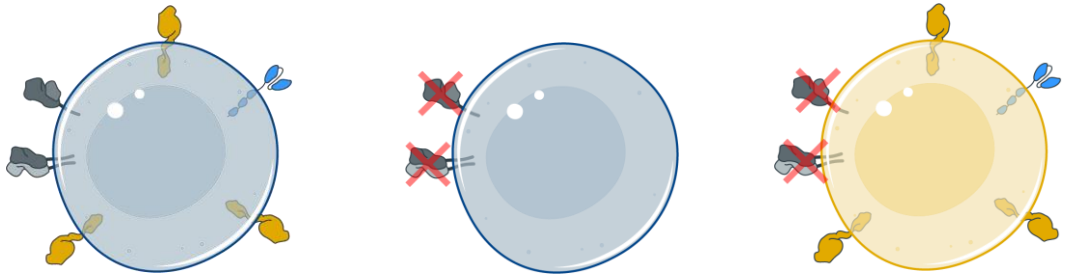
- No dose limiting toxicities
- No SC291-related SAEs
- No CRS or ICANS
- No Grade 3 or higher infections

Clinical data as of: January 5, 2024
"evaluable" defined as patients treated with SC291 and had at least one disease assessment
*Transformed DLBCL from FL. **Transformed DLBCL from MZL. ***Assessment ongoing as of January 5,2024.

Immune response data provide important early insights

Translating preclinical data to people

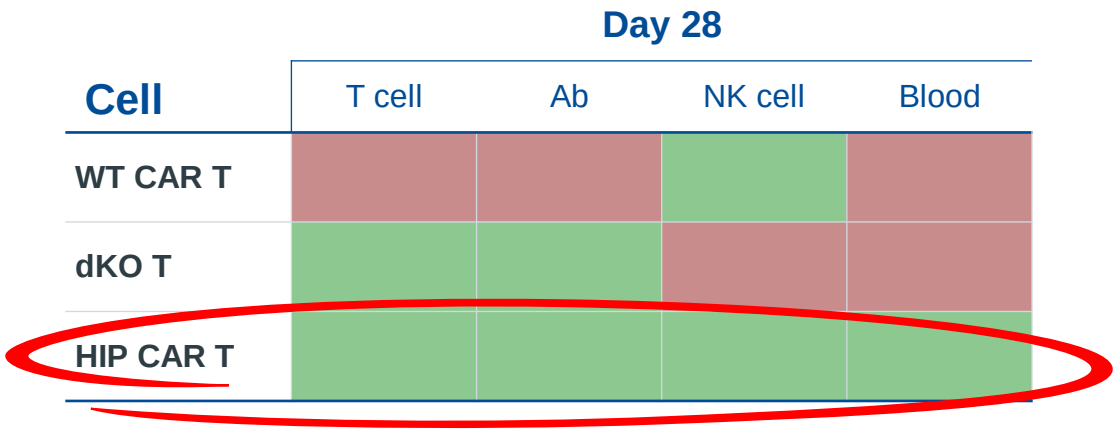
1 SC291 is a mixture of HIP and non-HIP CAR T cells



WT CAR T | dKO T | HIP CAR T

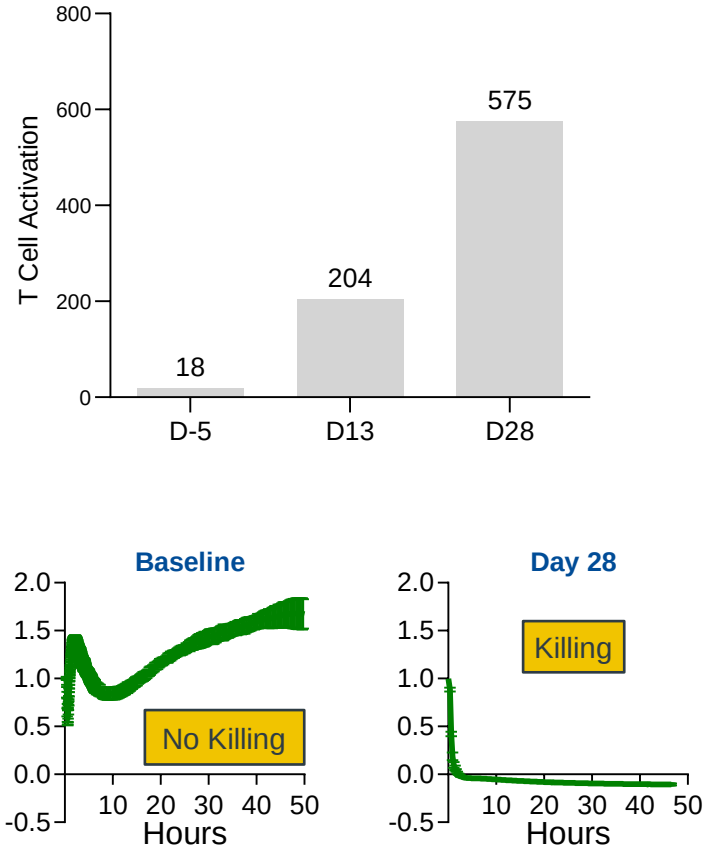
T Cell Population	Genetic Modifications
WT CAR T	CD47-CD19 CAR
dKO T	HLA I/II deficient
HIP CAR T	CD47-CD19 CAR; HLA I/II deficient

2 Test the patient's immune system against SC291

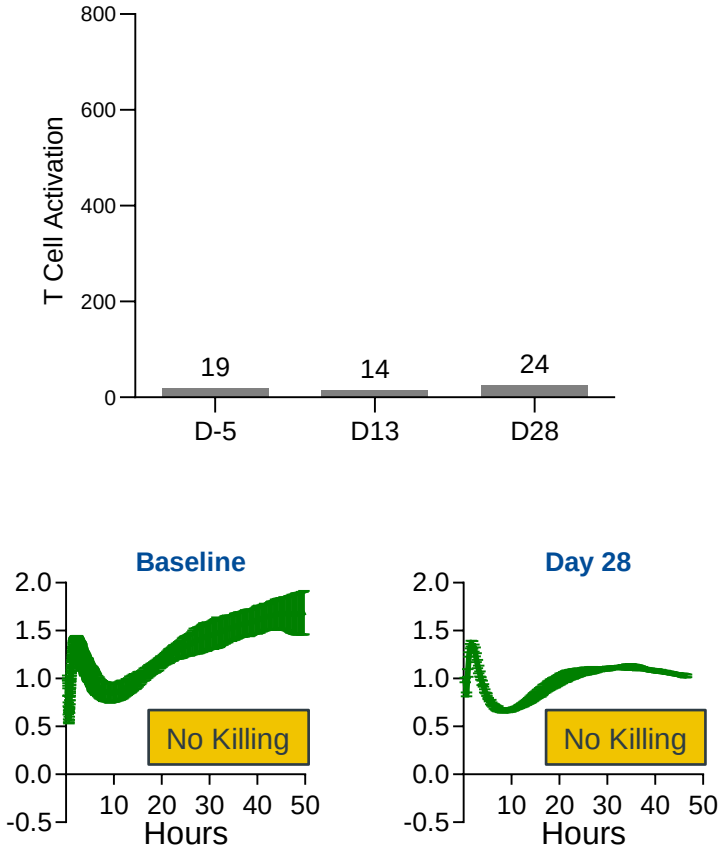


Patient T cells kill WT CAR T cells but do not kill dKO T cells or HIP CAR T cells

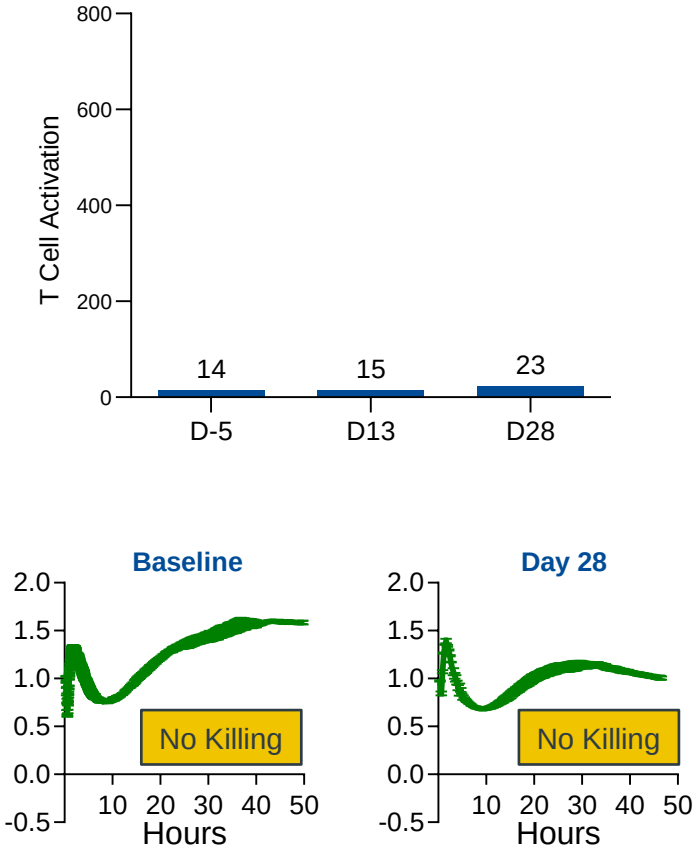
Patient T cells kill WT CAR T cells



Patient T cells do not kill dKO T cells



Patient T cells do not kill HIP CAR T cells



From Patient #1 in the ongoing ARDENT trial.

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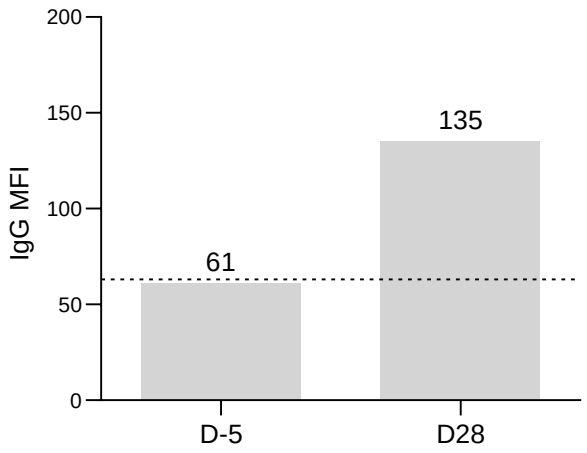
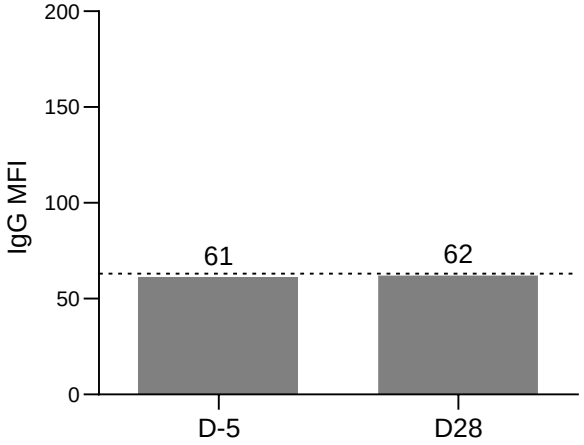
Patient generates antibodies against WT CAR T cells but not dKO T cells or HIP CAR T cells

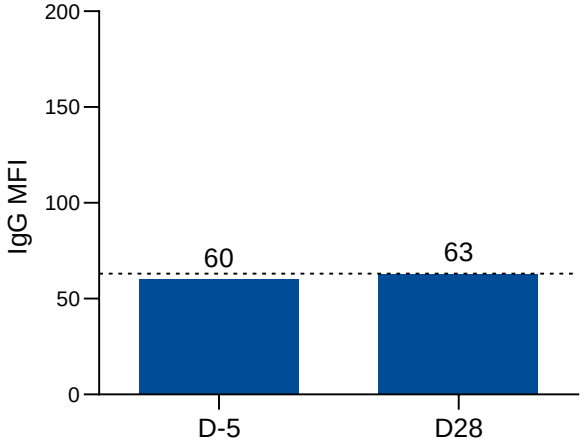
WT CAR T cells induce an antibody response



dKO T cells do not induce an antibody response



HIP CAR T cells do not induce an antibody response



From Patient #1 in the ongoing ARDENT trial.

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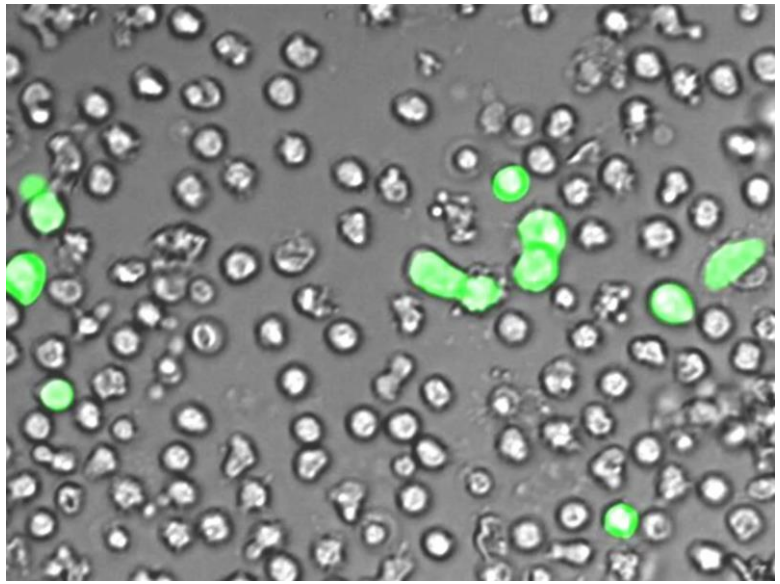
still image before movie

Only HIP CAR T cells avoid NK cell killing

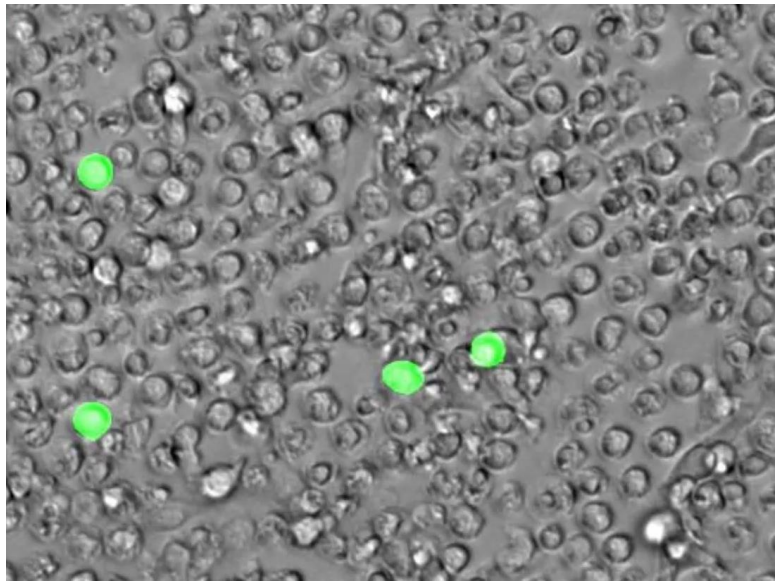
NK cells taken from patient's blood

Patient's NK cells from day 13 after SC291 dosing

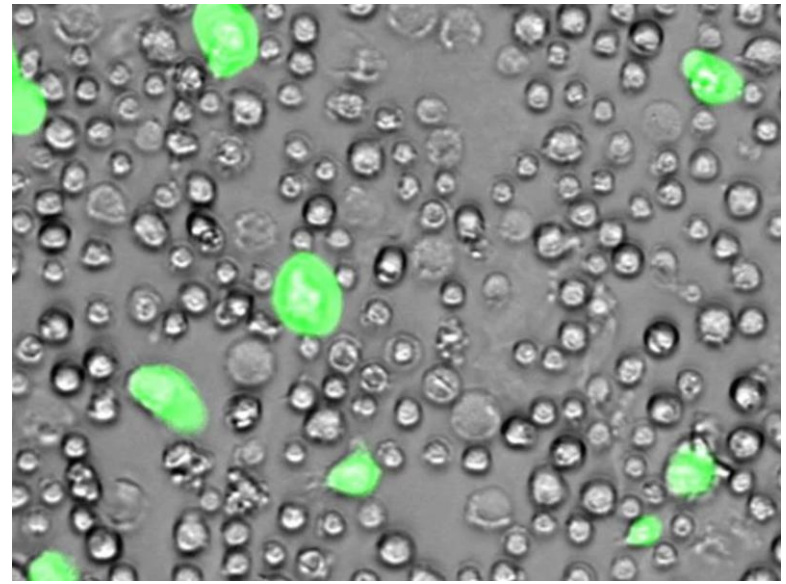
NK cells kill dKO T cells



NK cells kill dKO T cells with HLA-E overexpression



NK cells do NOT kill HIP CAR T cells



Actual assay time = 4 hours.

T cell with editing profile in column title NK cells

From Patient #1 in the ongoing ARDENT trial.

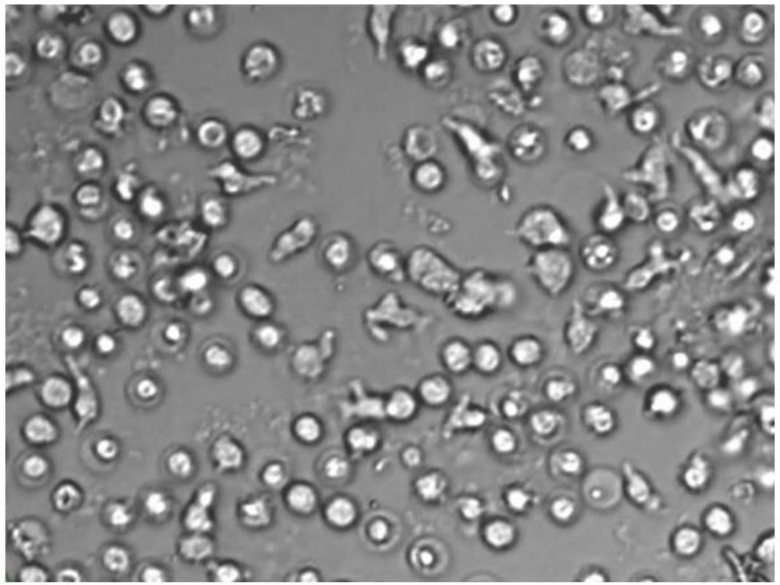
still image after movie

Only HIP CAR T cells avoid NK cell killing

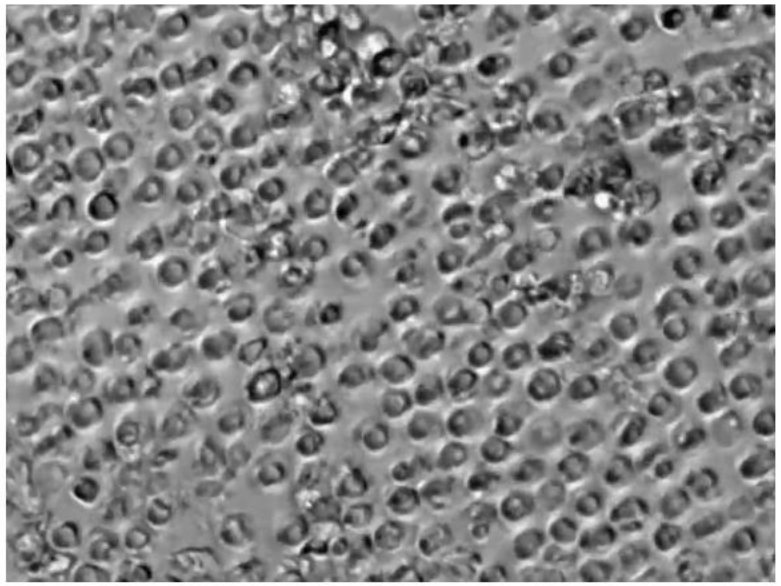
NK cells taken from patient's blood

Patient's NK cells from day 13 after SC291 dosing

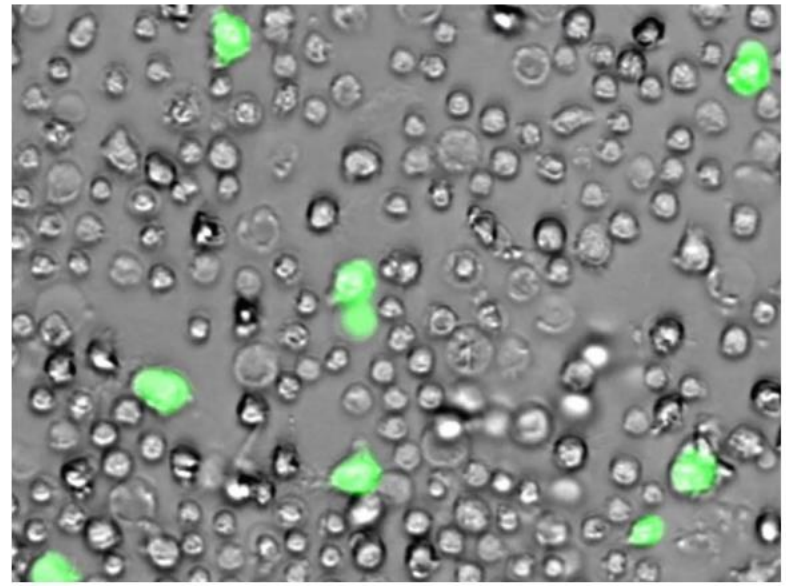
NK cells kill dKO T cells



NK cells kill dKO T cells with HLA-E overexpression



NK cells do NOT kill HIP CAR T cells



Actual assay time = 4 hours.

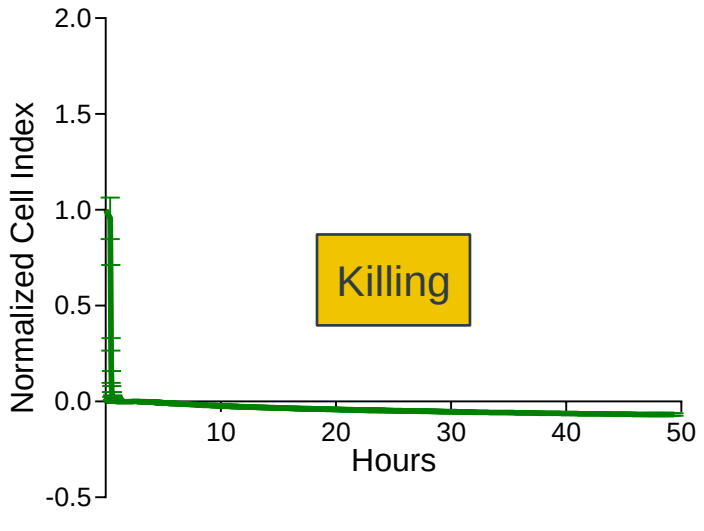
T cell with editing profile in column title NK cells

From Patient #1 in the ongoing ARDENT trial.

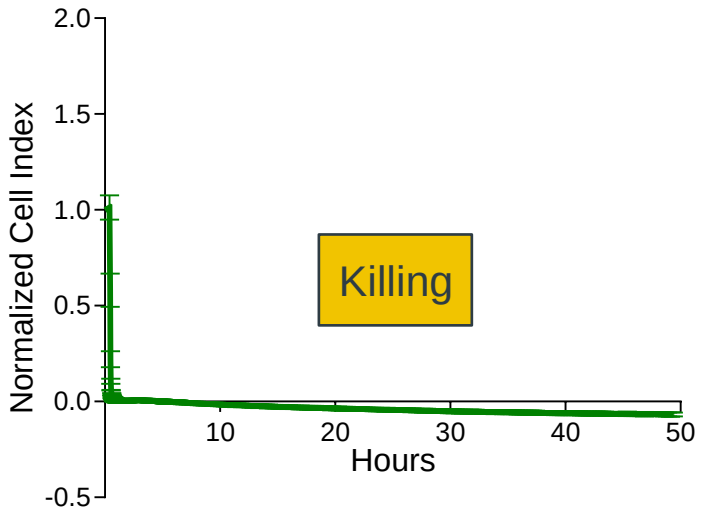
No detectable immune response in the patient toward HIP CAR T cells

D28 blood sample

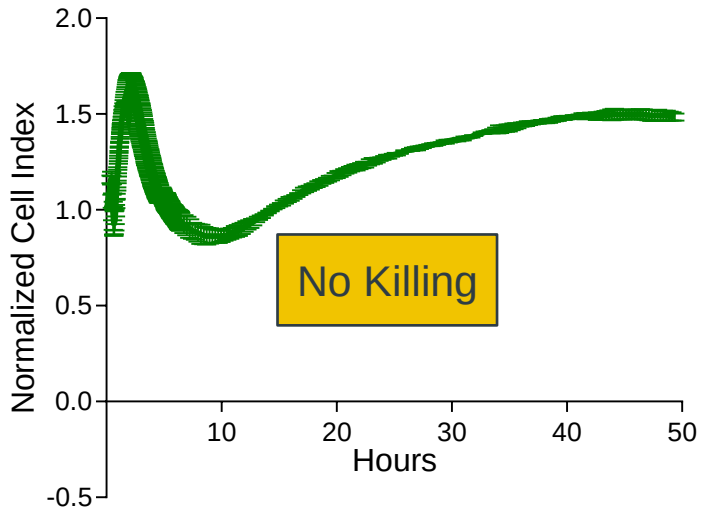
Target:
WT CAR T cells



Target:
dKO T cells



Target:
HIP CAR T cells



From patient #1 in the ongoing ARDENT trial.

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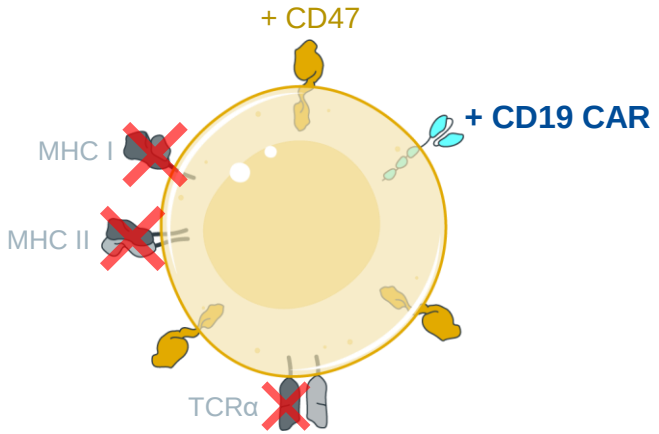
SC291: ARDENT trial continues enrollment with more data expected in 2024

- Early data suggest ability to dose safely, the desired immune evasion profile, and clinical efficacy
- More data to come
  - Immune evasion
  - Safety profile
  - Response rate
  - Cell persistence
  - Durability of responses

Allogeneic HIP CAR T cell



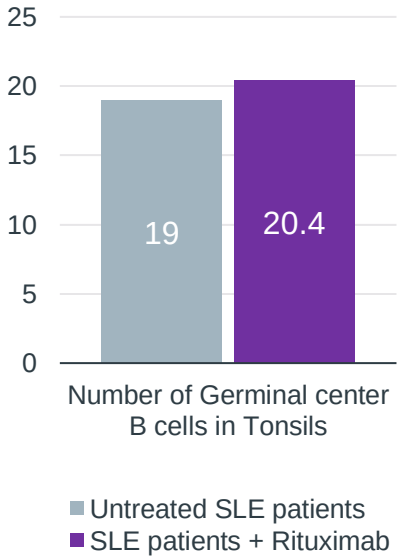
An effective allogeneic CAR T cell therapy offers potential to transform outcomes for patients

Autoimmune diseases have emerged as promising opportunity

1 B-cell targeting therapies have been efficacious across many autoimmune diseases[1]

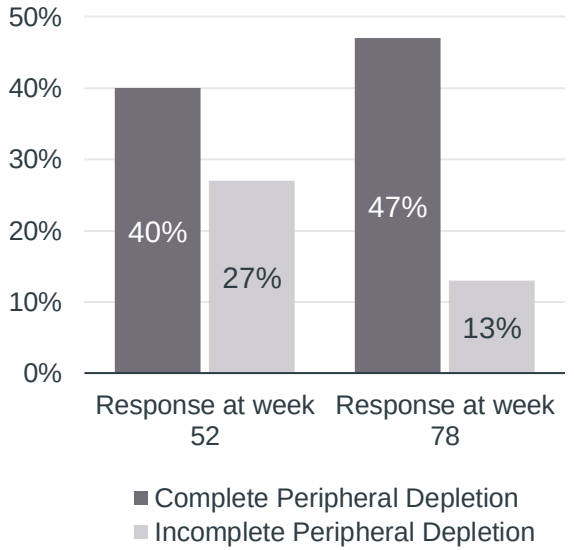
- SLE
- Vasculitis (granulomatosis with polyangiitis & microscopic polyangiitis)
- Neuromyelitis optical spectrum
- Pemphigus
- Relapsing and progressive MS
- Rheumatoid arthritis
- Lupus nephritis
- Sjogren syndrome
- NMDAR encephalitis
- Thrombocytopenic purpura
- Amyloidosis
- Scleroderma
- Autoimmune hemolytic anemia
- Chronic immune demyelinating polyradiculoneuropathy
- Immune-mediated necrotizing myopathy
- Membranous nephropathy

2 Germinal center B cells are unaffected by rituximab treatment[2]



3 Depth of B cell depletion with treatment predicts efficacy in early trials[3]

Complete B-cell depletion resulted in greater complete responses in Lupus Nephritis patients[2]



[1]Adapted from Zhang et al. *Frontiers in Immunology*. 2023; Oh et al. *Immune Network*. 2023; Lee et al. *Nature Reviews Drug Discovery*. 2021.
[2]Anolik et al. *Arthritis and Rheumatism* 2007
[3] Mendez et al. *Clinical Journal of the American Society of Nephrology* 2018

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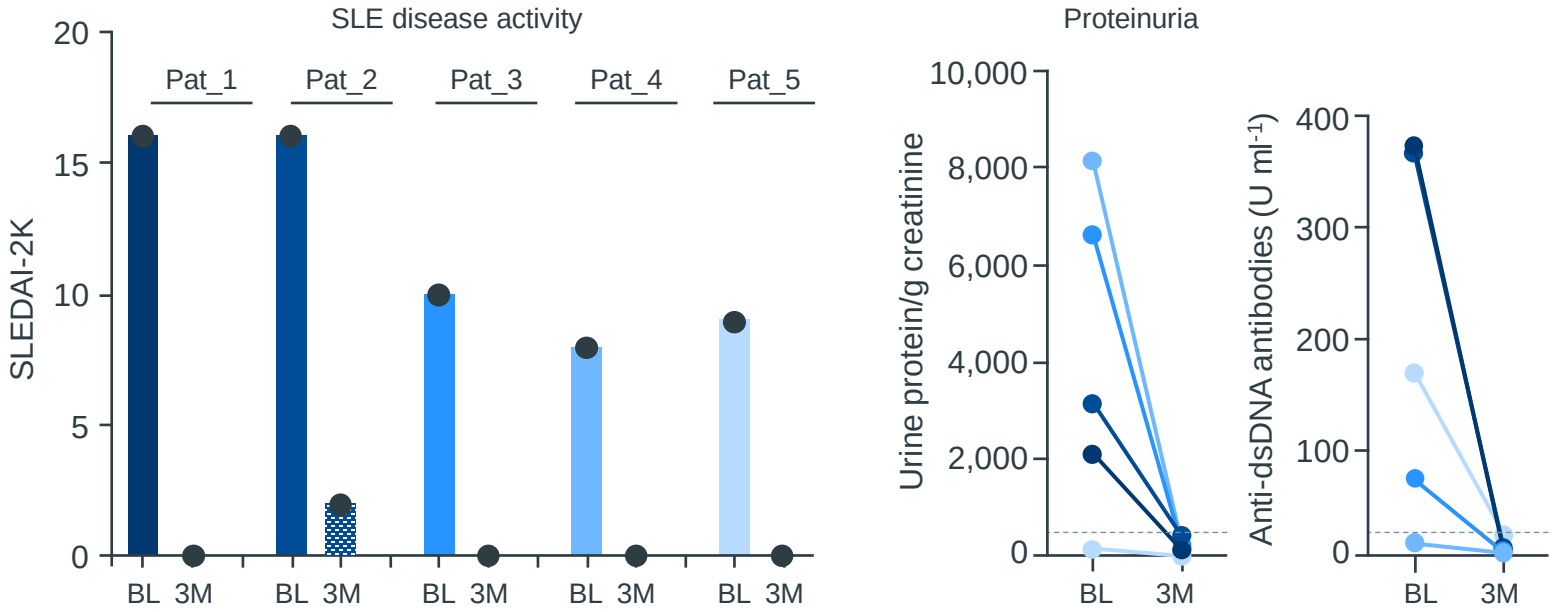
Autologous CD19 CAR T therapy results in durable drug-free remission in refractory SLE patients

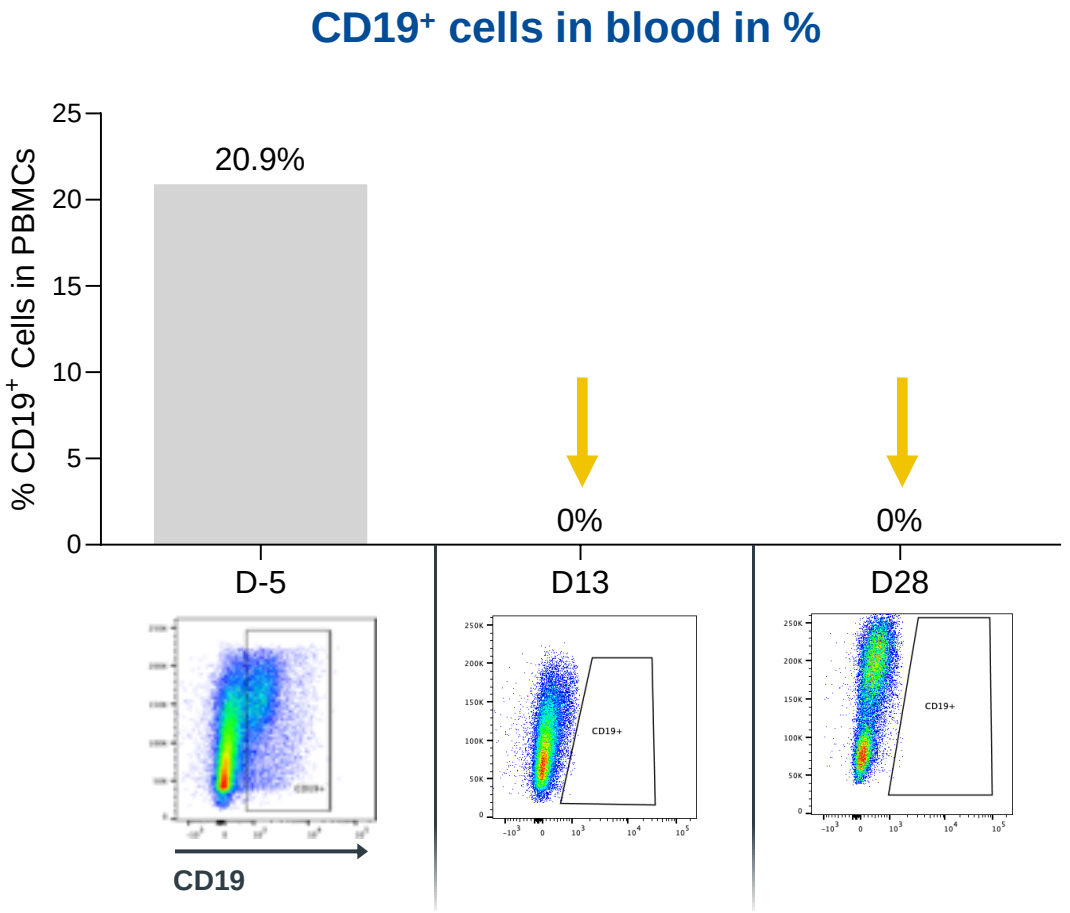
Improvement in signs and symptoms of SLE after CD19 CAR T treatment



- Well tolerated – mild CRS (Grade 1) and no ICANS seen
- 5/5 patients are in a durable complete remission and off all drugs
- All known disease biomarkers rapidly normalized and have remained so thus far
- 24+ months of drug-free remission seen in patients constituting a potential functional cure
- B-cell recovery and immune system reset in ~3 months with sustained SLE remission

Mackensen et al. *Nature Medicine*. 2022
Abbreviations: BL, baseline; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome; M, months; SLE, systemic lupus erythematosus.

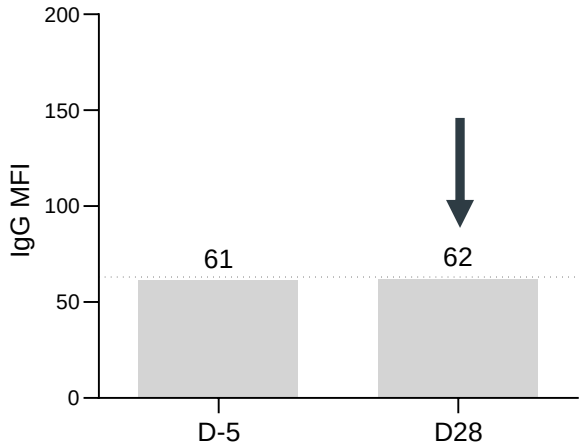
ARDENT trial: SC291 treatment leads to deep B cell depletion in oncology patient



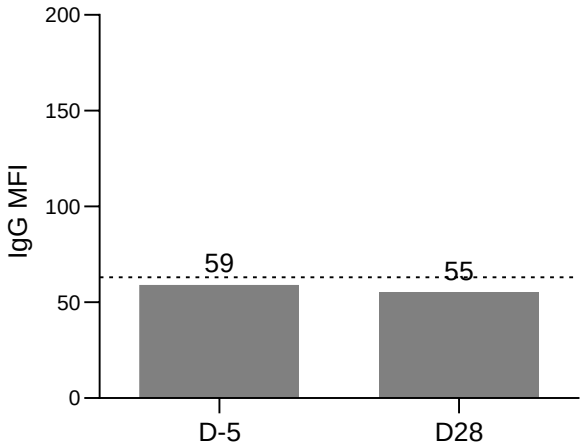
From Patient #4 in the ongoing ARDENT trial.

Complete B cell depletion may be even more important in autoimmune than oncology patients

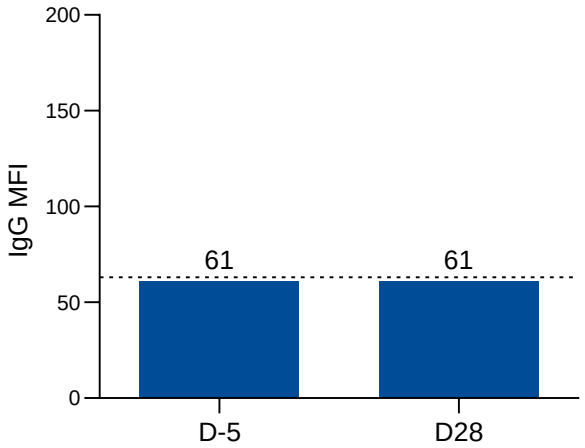
No anti-HLA antibody production against WT CAR T cells suggests complete B cell depletion



dKO T cells do not induce an antibody response



HIP CAR T cells do not induce an antibody response



From Patient #4 in the ongoing ARDENT trial.

Sana Biotechnology®

SC291 offers potential for transformative treatment for B-cell mediated autoimmune diseases

Targeting multiple indications

Phase 1 trial – multiple autoimmune disorders

1. Lupus nephritis >230K[1,2] patients[3]
2. Extrarenal SLE >200K[1] patients[3]
3. ANCA-associated vasculitis >60K[4] in US

SC291 benefits versus autologous therapies

1. No patient apheresis
2. Product availability
3. Scaled manufacturing
4. Consistent T cell quality

[1]Lu et al. *Annals of Rheumatic Diseases*. 2023
[2]Guzman et al. *Arthritis Rheum*. 2013
[3]US, EU5, and Japan
[4]Jayne et al. ANCA-Associated Vasculitis: An Update

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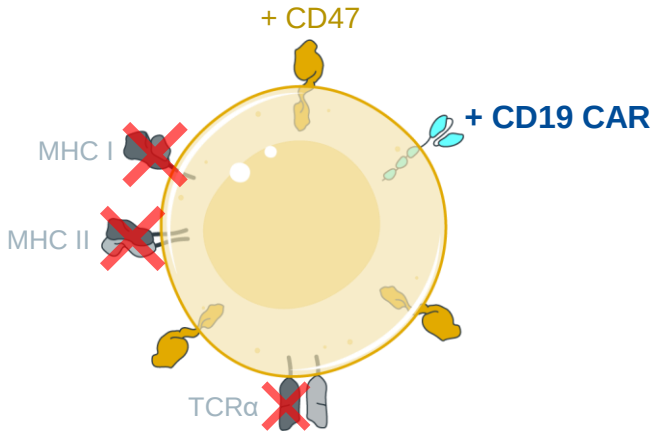
SC291: GLEAM Phase 1 trial goals are to understand safety, dose, and early efficacy

- Key features of Phase 1 trial (GLEAM)
  - Patients with refractory lupus nephritis, extrarenal SLE, and AAV
  - Starting dose of 90 million CAR T cells
  - Potential to expand beyond these indications over time
- Data expected in 2024 from multiple indications
  - Safety and tolerability
  - Early response rates

Allogeneic HIP CAR T cell



An effective allogeneic CAR T offers potential to transform outcomes for patients

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SC262: Targeting growing population of patients with inadequate response to CD19 therapy

CD19 CAR T relapsed patients represent large and growing unmet need[1]

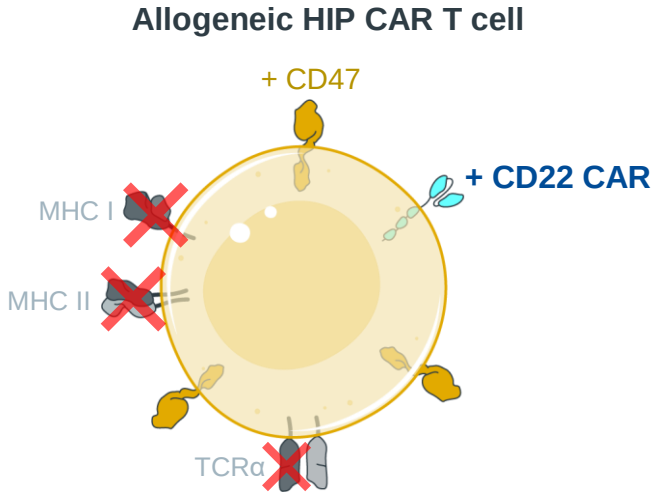
Estimated ~12,000 B cell malignancy patients treated with CD19 CAR T in 2027[2]

- Potential of ~7,500 CAR T failures annually in 2027[2]
- Median survival of ~5 months post-CD19 CAR T therapy failure[3]

Estimated ~35-40% of CAR T patients with durable complete responses[4]

= 1,000 people

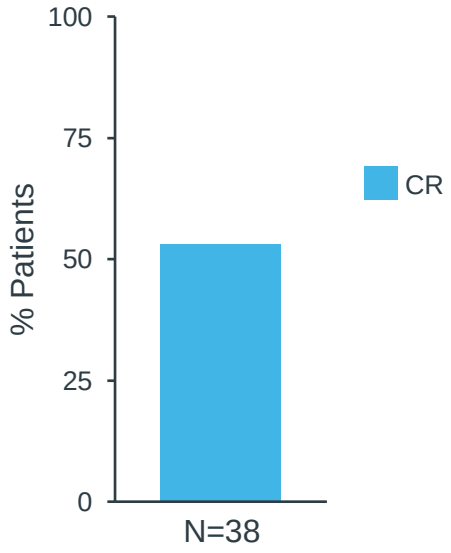
Expand our allo T platform to CD22 with Sana's SC262 candidate



[1]US, EU5, and Japan.[2]Clarivate DRG NHL Market Forecast Nov 2021; 2027 Forecast is 2L+ LBCL patients; internal analysis of secondary EPI data.[3]Di Blasi et al. *Blood*.2022; DESCAR-T registry.

SC262: Licensed CD22 CAR produced strong clinical data in CD19 failures when part of autologous CAR T

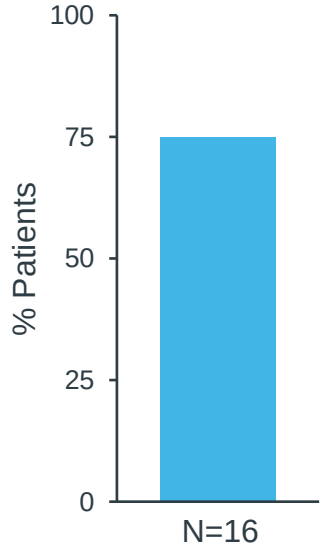
>50% 6-month CR rate in CD19 CAR failure DLBCL patients



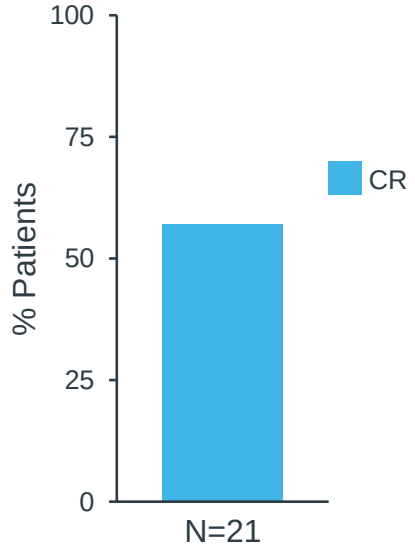
2023 ASH Yi-Jiun Su

High rate of CRs in CD19 failure ALL patients

~80% patients with prior CD19 therapy



2022 ASH Miklos/Stanford



2018 *Nature Med* Fry, et al.

VIVID Phase 1 Trial

- CD19 CAR T exposed relapsed and/or refractory NHL
- Adult subjects
- Dose escalation study
- Cell dose: 90M, 150M, and 250M
- Standard lymphodepletion
- Primary Endpoints: Safety and tolerability
- Secondary Endpoints: Patient response

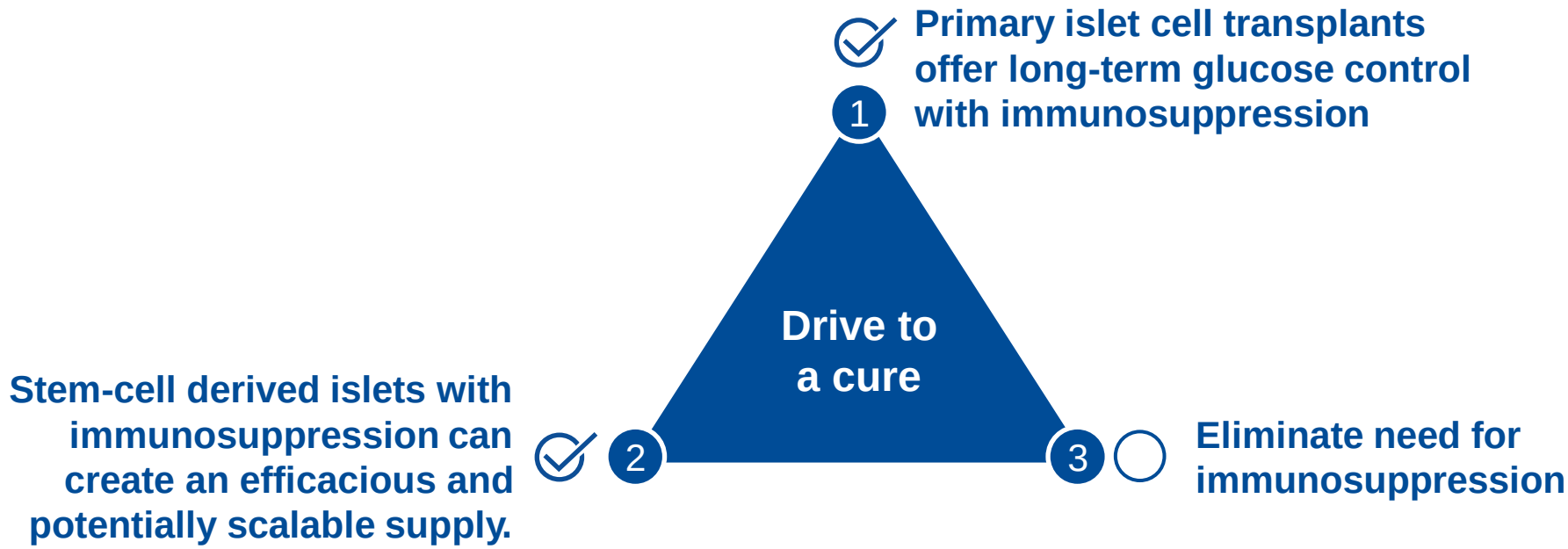
Type 1 diabetes represents a large unmet need with a loss of ~15 years of life[1]

- Disease caused by autoimmune destruction of insulin-producing pancreatic beta cells, resulting in no insulin production
- Type 1 diabetes is a large unmet need with >8M WW[2]
- Short-term complications result from hypo- and hyperglycemia
- Long-term complications result from micro- and macrovascular disease and end-organ damage: including heart attack, stroke, blindness, and kidney failure
- SC451 goal is euglycemia without any immunosuppression or exogenous insulin

[1]Rawshani et al. *Lancet.* 2018
[2]t1dindex.org

Emerging data suggest a cure is possible

Sana – combining stem cell, gene editing, and immunology expertise

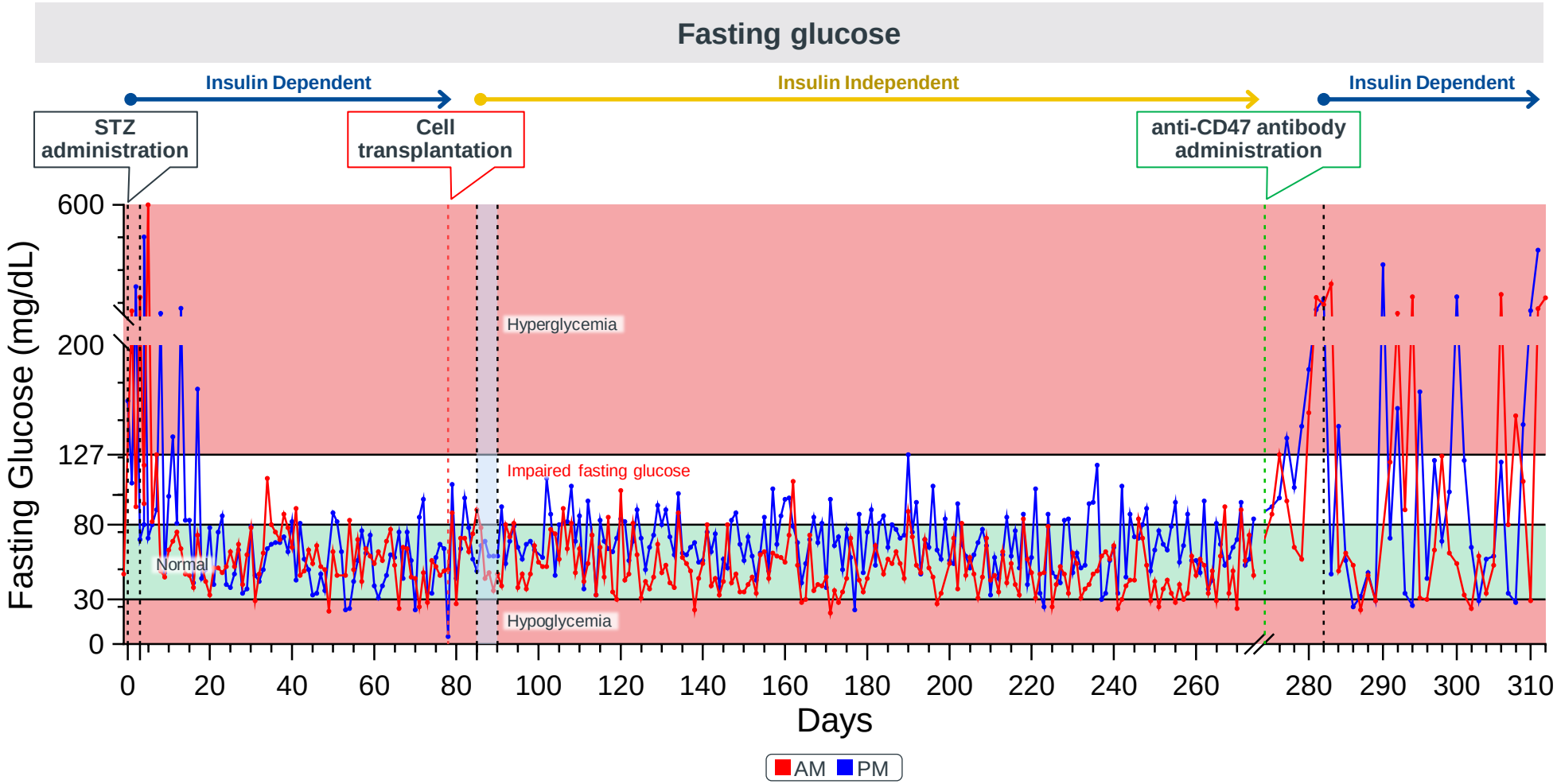


Goal – single treatment with long-term normal blood glucose without immunosuppression or insulin

Survival and function of allogeneic hypoimmune pancreatic islet cells in diabetic NHP 6 months without immunosuppression

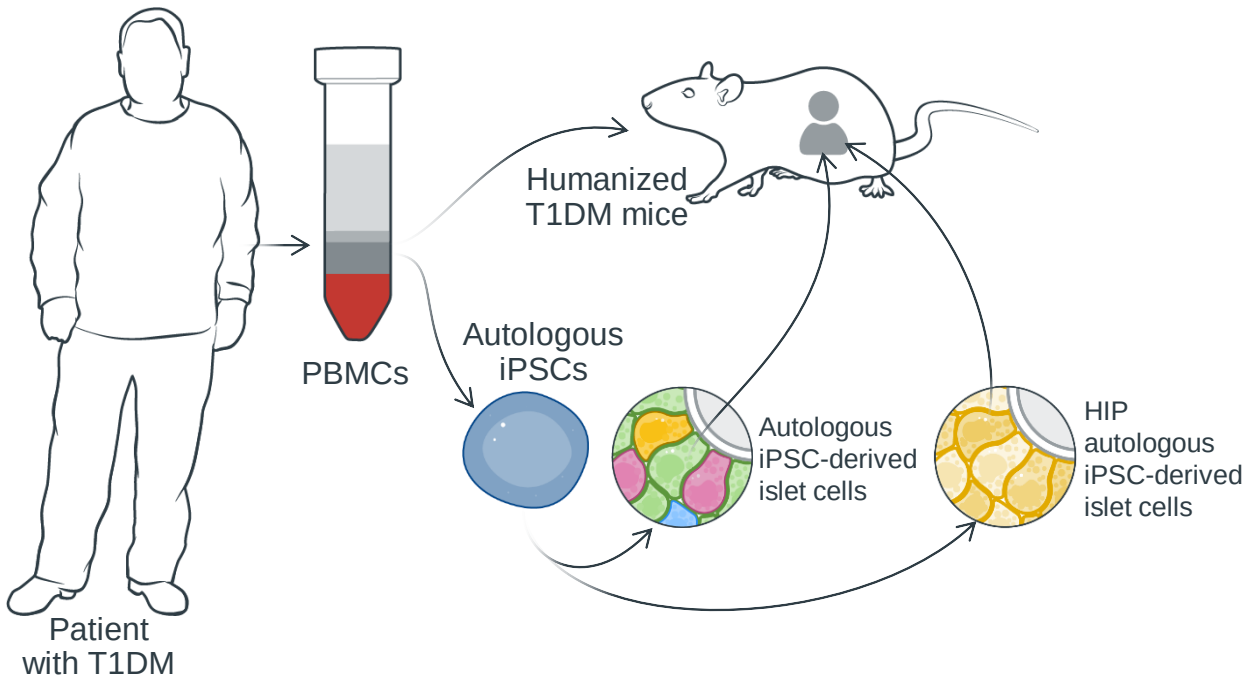
Study Design (N=1)

- NHP primary islet cells isolated and HIP-modified
- Cells injected intramuscularly into a diabetic, allogeneic NHP without immunosuppression



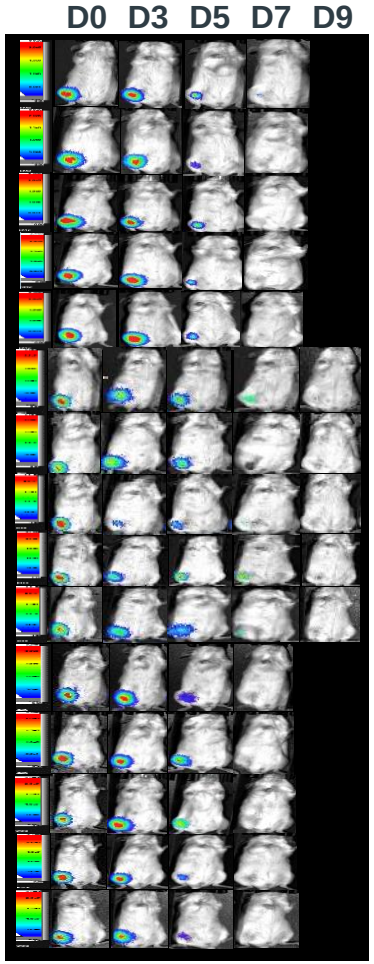
Type 1 diabetes model highlights potential to overcome autoimmune rejection of pancreatic beta cells

PBMCs from patient with T1DM used to generate stem cell-derived islet cells and to humanize immune system in mice



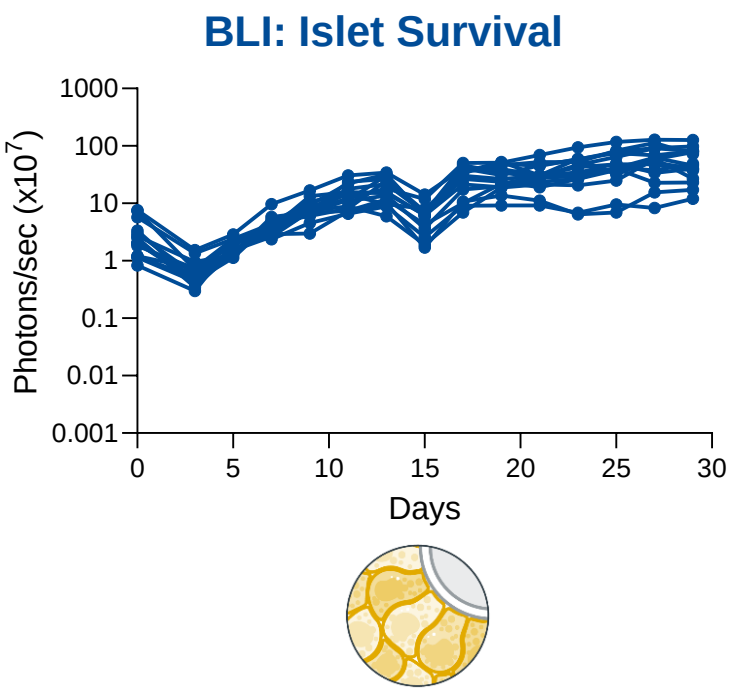
Unmodified stem cell-derived islet cells from patient with T1DM do not survive

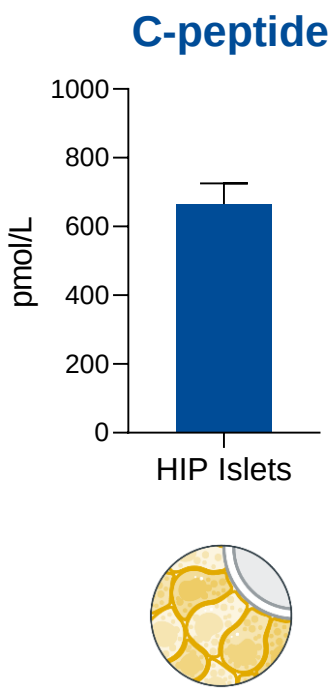
Patient T cells eliminate islet cells due to autoimmunity

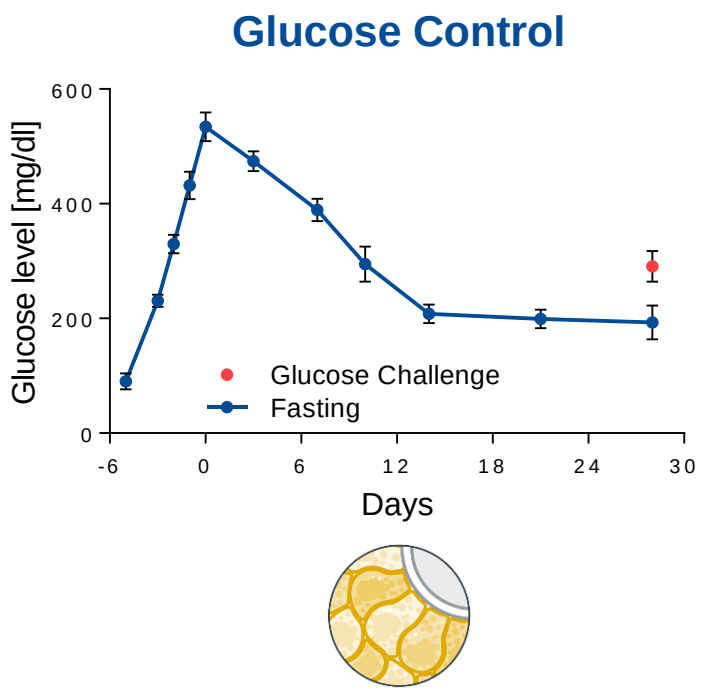


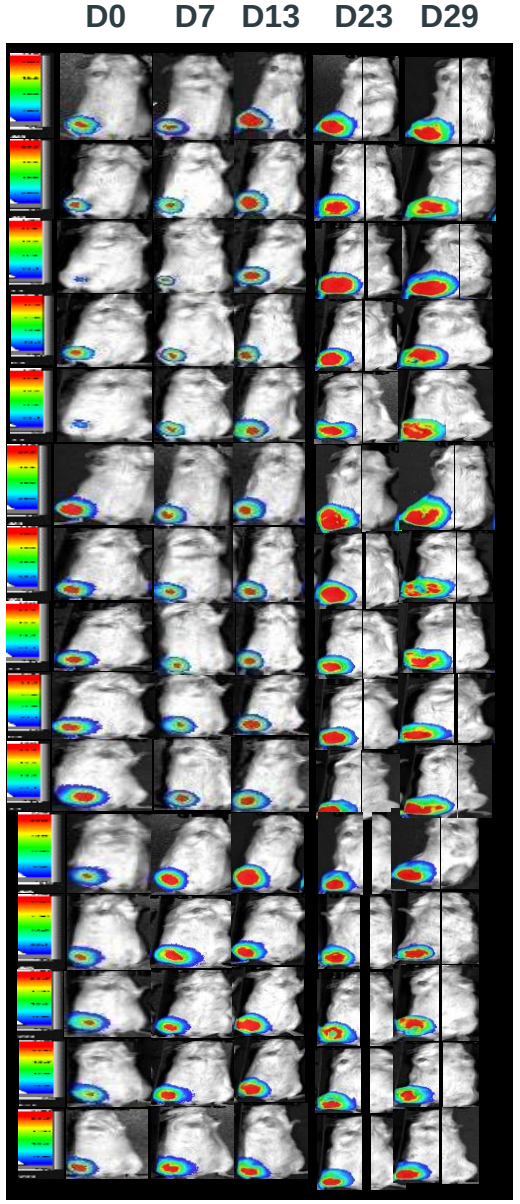
Abbreviations: T1DM, type 1 diabetes mellitus
Hu et al. *Sci Transl Med*. 2023

HIP iPSC-derived pancreatic islet cells from patient with T1DM evade autoimmune killing and control glucose









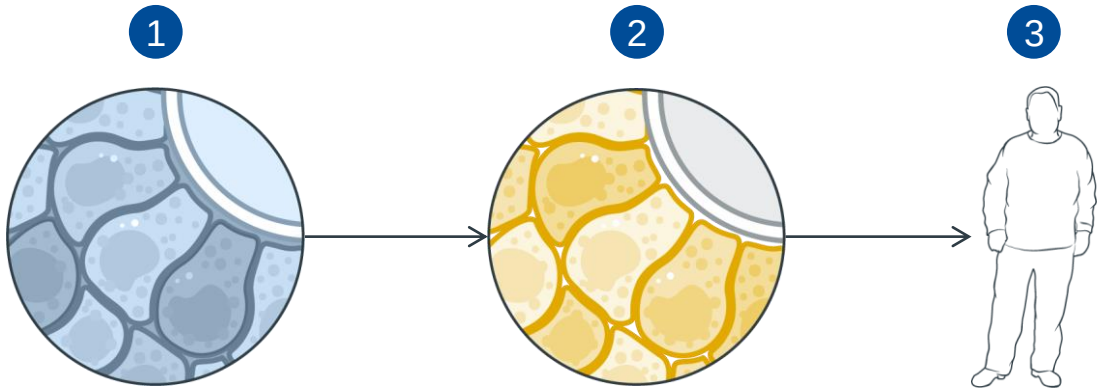
Abbreviations: BLI, bioluminescence imaging

Hu et al. *Sci Transl Med*. 2023.

Potential clinical validation of hypoimmune islet cells in T1DM patients

- Trial authorized at Uppsala University Hospital
- Primary human HIP islet cells transplantation in type 1 diabetes patients
- Intramuscular administration in forearm
- No immunosuppression
- Insights for SC451

IST Design

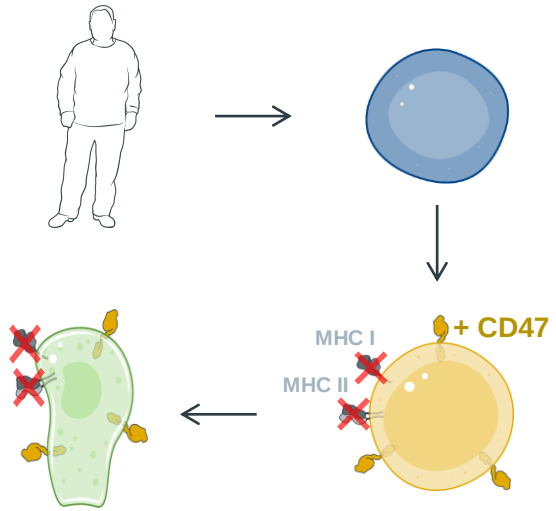


Key Measured Outcomes

Cell survival & immune evasion
C-peptide
Glycemic control

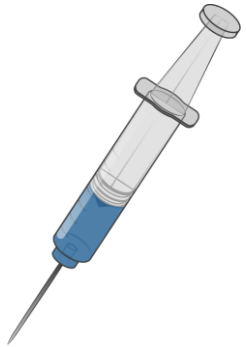
Sana’s approach to treat type 1 diabetes

1 Make hypoimmune islet cells from stem cells



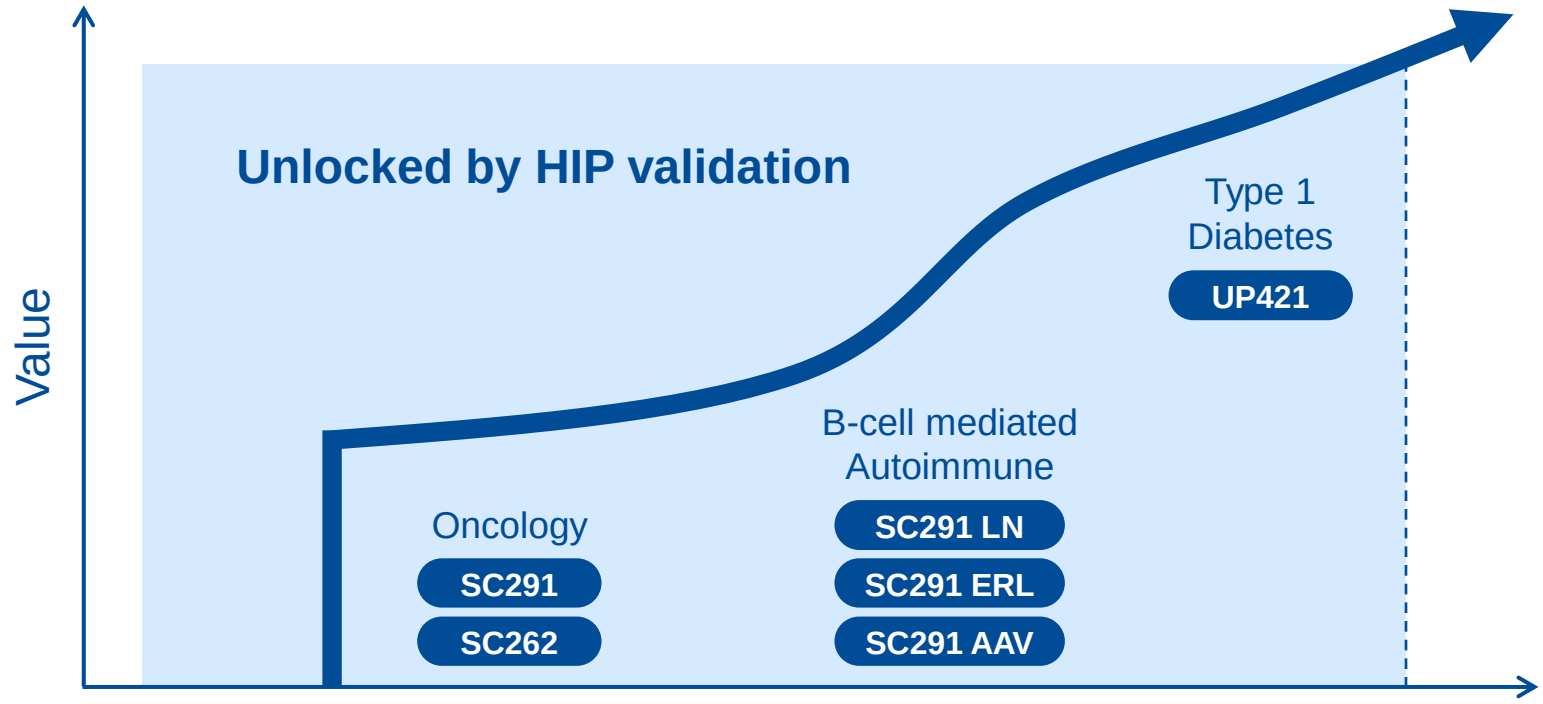
2 Manufacture at scale

3 Deliver as a single therapy



SC451 program – HIP stem cell-derived islet cell therapy – delivered with no immunosuppression

Meaningful clinical data in multiple diseases in 2024



Unlocking the potential of our hypoimmune platform across multiple patient populations

Thank You

Sana Biotechnology
www.sana.com