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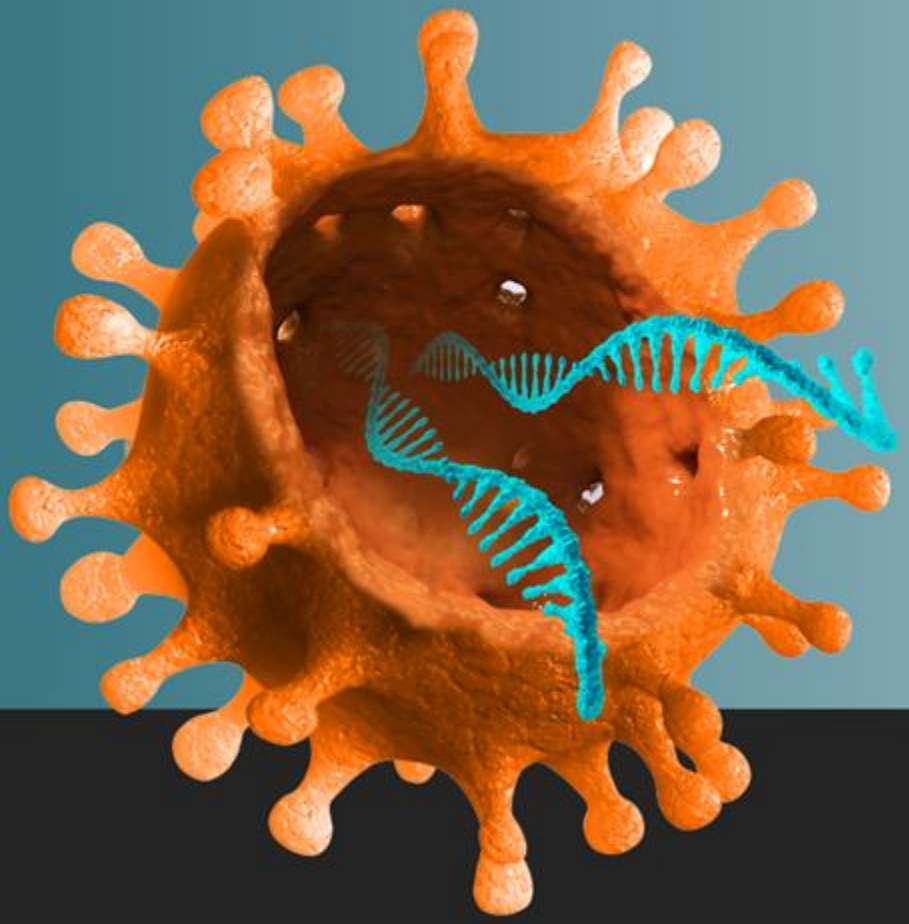

CORPORATE PRESENTATION – JANUARY 2025

Umoja Biopharma

In vivo CAR T Cell Therapies for Oncology and Autoimmune Disease

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Ex vivo CAR T cell therapies are transformative drugs…

However, multiple factors related to their autologous makeup restrict access.

Complex treatment logistics including requirement for chemotherapy pre-conditioning

Bespoke 1:1 manufacturing with prohibitive costs

Lengthy time from referral to final drug delivery

Currently, only **~20% of eligible patients** are successfully treated in the US

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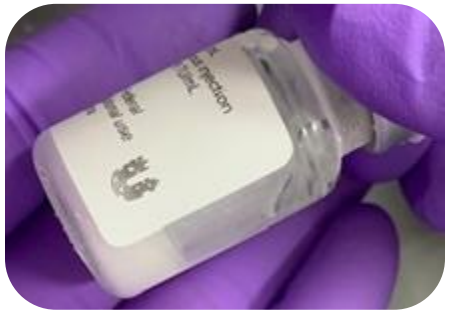
In vivo delivery addresses challenges of ex vivo CAR therapies

Umoja's VivoVec™ platform is designed to enable direct in vivo delivery of CAR payloads to T cells

VivoVec Drug Product



Immediate availability

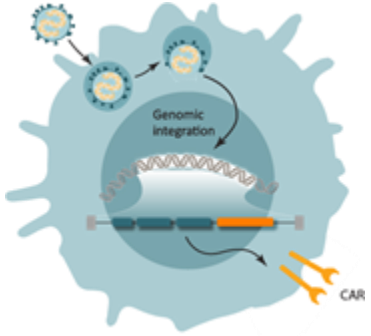
Scalable with low COGs

Patient Experience

Patient CAR T cells **created in vivo**

No lymphodepleting chemotherapy

T Cell Expansion



CAR T cells **expand in the body** to eradicate tumor

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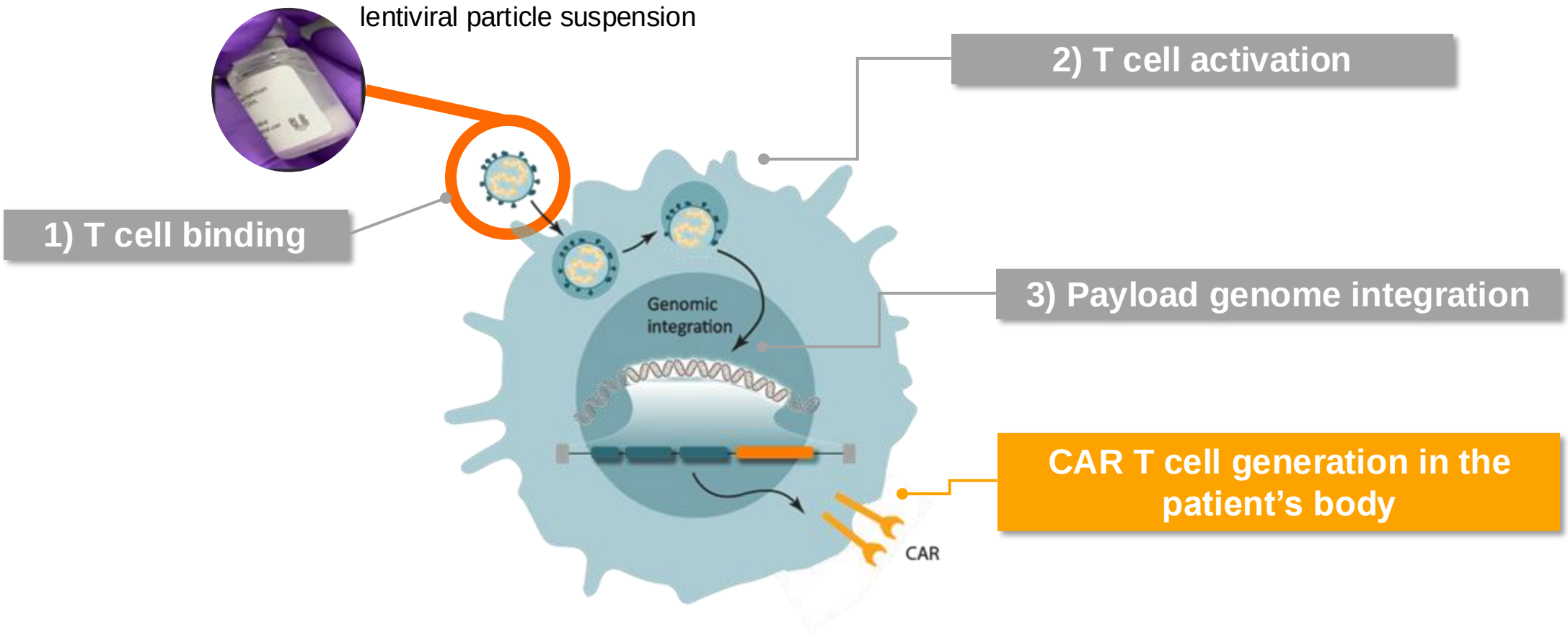
VivoVec is a differentiated platform for in vivo delivery

Proprietary multi-domain ligand surface engineering[1] designed to activate and costimulate T cells to maximize potency and expansion



[1] *Nicolai et al, Blood. 2024 Aug 144(9):977-987*

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VivoVec Product Pipeline

Building near-term value with wholly owned programs for oncology and autoimmune disease plus strong partnership with AbbVie

Program	Target(s)	Indication(s)	Discovery	Pre-Clinical	Phase 1	Commercial Rights
UB-VV111	CD19	Hematology			INVICTA-1 (enrolling)	abbvie
UB-VV400	CD22	NHL & Lupus			China IIT (enrolling)	Umoja
UB-VV500	Undisclosed	Multiple Myeloma				Umoja
UB-VV310	CD20	NHL & Autoimmune				Umoja
UB-VV200	Adapter (Combinatorial)	Solid Tumors				Umoja

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UB-VV111 is our most advanced program

Strategic collaboration with AbbVie[1]

abbvie

Non-dilutive capital from upfront, clinical development milestones, royalties

Big Pharma resources maximize potential of UB-VV111 in the CD19 landscape

Umoja actively enrolling INVICTA-1 US Phase 1 study in LBCL, CLL

[1] AbbVie retains exclusive option to Umoja's in vivo CD19 programs, including UB-VV111

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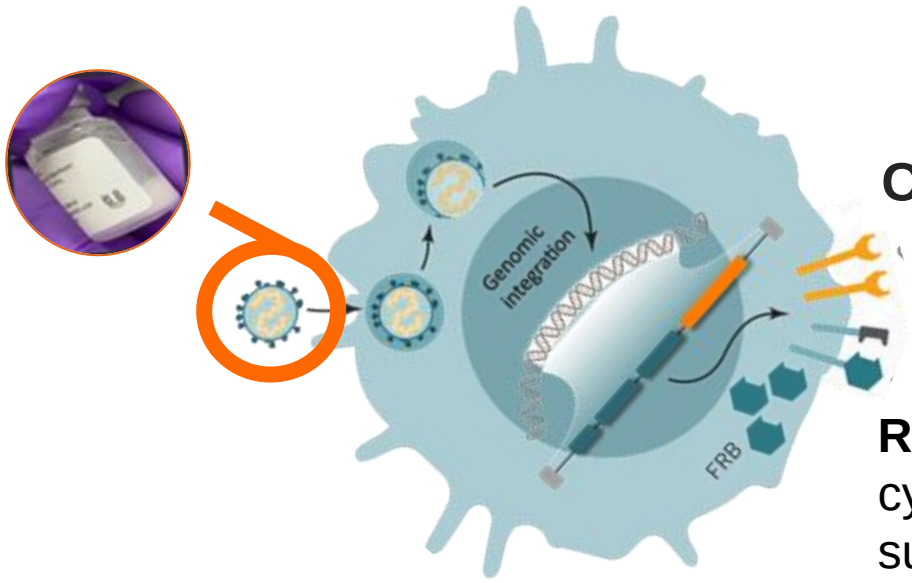
UB-VV400 (CD22) is our lead internal program[1] with applications in heme malignancies and autoimmune disease

UB-VV400 dual payload designed for enhanced potency and safety



CD22 CAR

RACR[2] - synthetic cytokine system to support CAR T survival and potency

Why CD22?

- expression profile similar to CD20
- expression on nearly all B cell malignancies
- Clinically validated target in CD19 relapse patients

[1] IASO Biotherapeutics retains development rights in greater China
[2] Rapamycin Activated Cytokine Receptor (Rapamycin is an approved oral drug with anti-proliferative activity)

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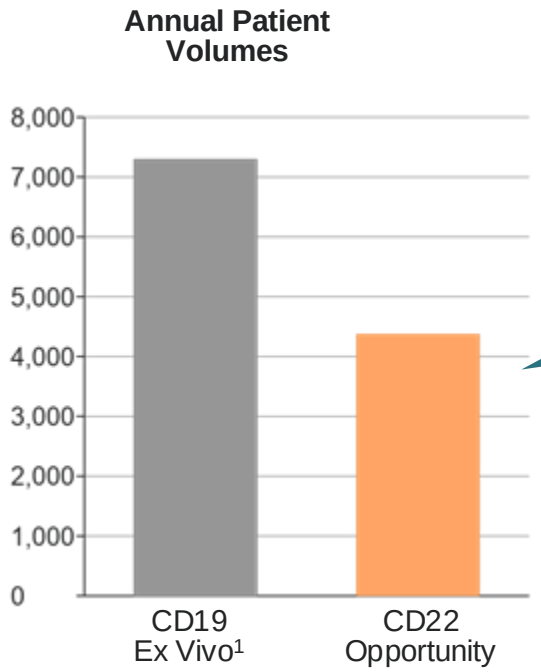
CD19 CAR relapsed LBCL patients are a significant market opportunity with high unmet medical need

Initial CD22 Indication and Expansion



~60% of CD19 CAR treated patients relapse[2] – estimated 4000 patients per year

- **No current SOC option beyond chemotherapy**

[1] CD19 Ex Vivo volume is an Umoja estimation of current Q1'24 annualized run-rate based on global treatment volumes of CD19 products YESCARTA, TECARTUS, BREYANZI, and KYMRIAH derived from revenue reported by the applicable company.

[2] Cargo Therapeutics - Phase 1, single-center clinical study (NCT04088890) evaluating firi-cel, a CD22 CAR T-cell therapy CARGO in-licensed for patients with LBCL whose disease is R/R to CD19.

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CD19 CAR relapse LBCL patient population offers a clear registrational path for UB-VV400

Data from IIT in China will determine a fast-to-registration path

- **Three phase initial global development plan**
  - **2025 IIT dose finding data set will support follow up 2026 dose confirmation trial:**
    - File US IND and AUS CTA to enable phase I dose-confirmation trial in western jurisdictions
  - **Accumulating data from 2026 dose confirmation trial (+/- IIT data) will support 2027-2028 registrational trial(s)**
    - Single arm trial RR/CR endpoint for accelerated approval
    - (+/-) Randomized confirmatory study with PFS/OSS endpoint

- **High value label expansion opportunities include:**
  - CD19 refractory earlier lines of LBCL and other NHL indications
  - CD19 naïve patient in LBCL, MCL, CLL and ALL
  - Outpatient and community centers (pending safety profile)

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Catalyst Calendar and Summary

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2024 execution tees up multiple value-creating clinical catalysts in 2025

- Two partnering deals signed
  - IASO BIO in vivo partnership (Jan 2024)
  - AbbVie partnership for In-Situ CAR T cell therapies (Jan 2024, up to $1.4B in deal value)
- NHP proof of concept data published in prestigious journal Blood[1] (June 2024)
- UB-VV111 IND Clearance—first in US (July 2024)
- Múltiple GMP product runs completed in Umoja-owned mfg facility (2024)
- UB-VV111 and UB-VV400 Site Activation and Clinical Trial Initiation (Q4 2024)
- **Oversubscribed $100M Series C**

[1]*Nicolai et al, Blood, Blood. 2024 Aug 144(9):977-987*

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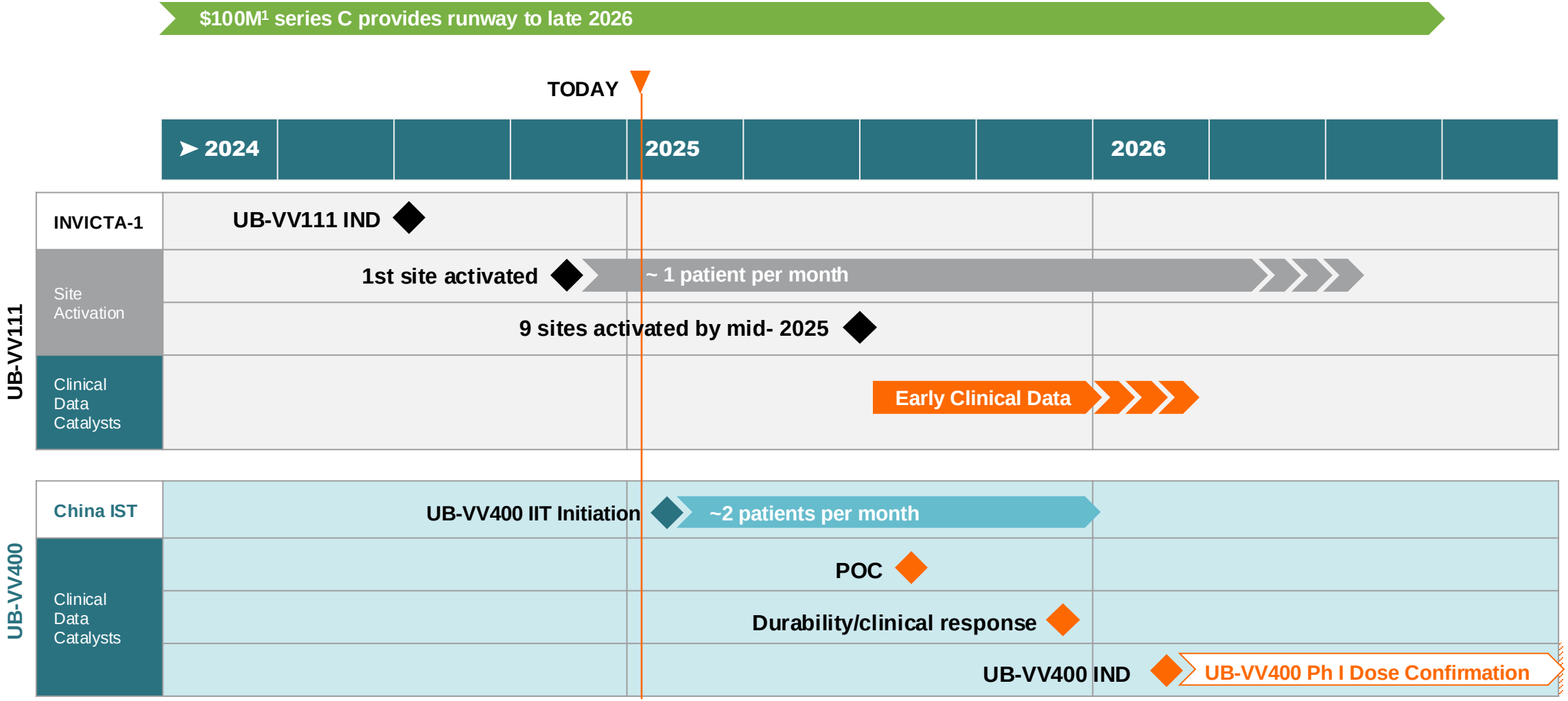
Clinical Development Timelines and Catalyst Calendar

Cash Runway[1]



Industry-leading potential in CAR T cell therapeutics

Traditional ex vivo CAR T therapies

- Most complex treatment journey in oncology with 110+ day wait[1] from referral to infusion
- Not easily scalable

Currently, only **~20% of eligible patients[2]** are successfully treated in the US

Unique value proposition of Umoja

- **Most advanced in vivo CAR tech**
  - VivoVec **proprietary multiple domain ligand surface engineering** for enhanced CAR T cell functionality
  - **Dual RACR-CAR payload** (CAR and rapamycin-activated cytokine receptor system) designed to enhance potency and safety
- **Commercial-ready suspension process manufacturing** – run in Umoja owned GMP facility
- **Two products reading out clinical data in 2025**

Competitor in vivo CAR T approaches

- Single ligand surface engineering
- CAR only payloads
- Adherent manufacturing processes – not scalable to thousands of patients

1 Battiwalla et al, "Access Barriers to Anti-CD19+ CART-Cell Therapy for NHL Across a Community Transplant and Cellular Therapy Network," Blood Advances, Oct 17 2024
2 Revenue-derived patient estimations with internal assumptions versus Clarivate/DRG drug-treated patient estimations in major markets

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Patients are waiting

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