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Committed to Cures

Pioneering next-generation cell therapies for patients with cancer and other serious diseases

August 2021

Disclaimer

This presentation contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995, including with respect to timing of initiation and progress of, and data reported from, the clinical trials of Gamida Cell's product candidates, anticipated regulatory filings (including the submission of the BLA for omidubicel to the FDA), commercialization planning efforts, the potentially life-saving or curative therapeutic and commercial potential of omidubicel, and Gamida Cell's expectations regarding its projected cash runway. Any statement describing Gamida Cell's goals, expectations, financial or other projections, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement. Such statements are subject to a number of risks, uncertainties and assumptions, including those related to the impact that the COVID-19 pandemic could have on our business, and including the scope, progress and expansion of Gamida Cell's clinical trials and ramifications for the cost thereof; clinical, scientific, regulatory and technical developments; and those inherent in the process of developing and commercializing product candidates that are safe and effective for use as human therapeutics, and in the endeavor of building a business around such product candidates. In light of these risks and uncertainties, and other risks and uncertainties that are described in the Risk Factors section and other sections of Gamida Cell's Annual Report on Form 20-F, filed with the Securities and Exchange Commission (SEC) on March 9, 2021, as amended, and other filings that Gamida Cell makes with the SEC from time to time (which are available at http://www.sec.gov), the events and circumstances discussed in such forward-looking statements may not occur, and Gamida Cell's actual results could differ materially and adversely from those anticipated or implied thereby. Although Gamida Cell's forward-looking statements reflect the good faith judgment of its management, these statements are based only on facts and factors currently known by Gamida Cell. As a result, you are cautioned not to rely on these forward-looking statements.

Committed to Cures: Near-term Promise and Long-term Potential

Proprietary nicotinamide (NAM) cell expansion platform enables a continuing series of advanced cell therapy programs

Readying for commercialization

Omidubicel

- Preparing for BLA submission in 4Q21*
- Potential to be first FDA-approved cell therapy for bone marrow transplantation

Progressing clinical program in NK cells

GDA-201

- Innate NK cell product with positive Phase 1 data
- Advancing to Phase 1/2 in NHL in 2H21

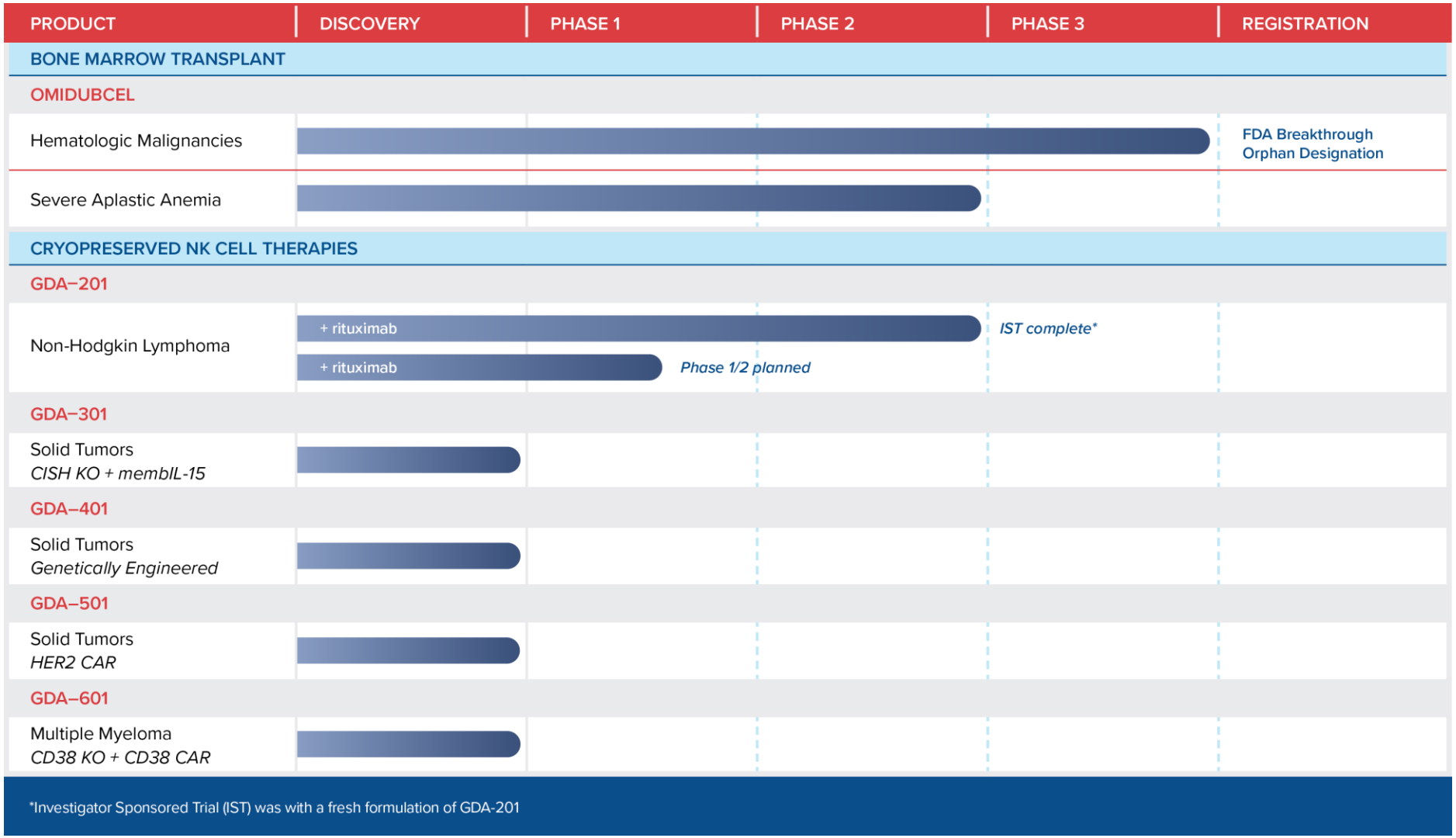
Opening new frontiers in cancer immunotherapy

GDA-301/401/501/601

- Proof-of-concept for CAR and CRISPR editing
- Evidence of increased cytotoxicity in preclinical studies
- Potential in blood cancers and solid tumors

*Subject to pre-BLA meeting with the FDA in 4Q21

Our NAM-Enabled Advanced Cell Therapy Programs



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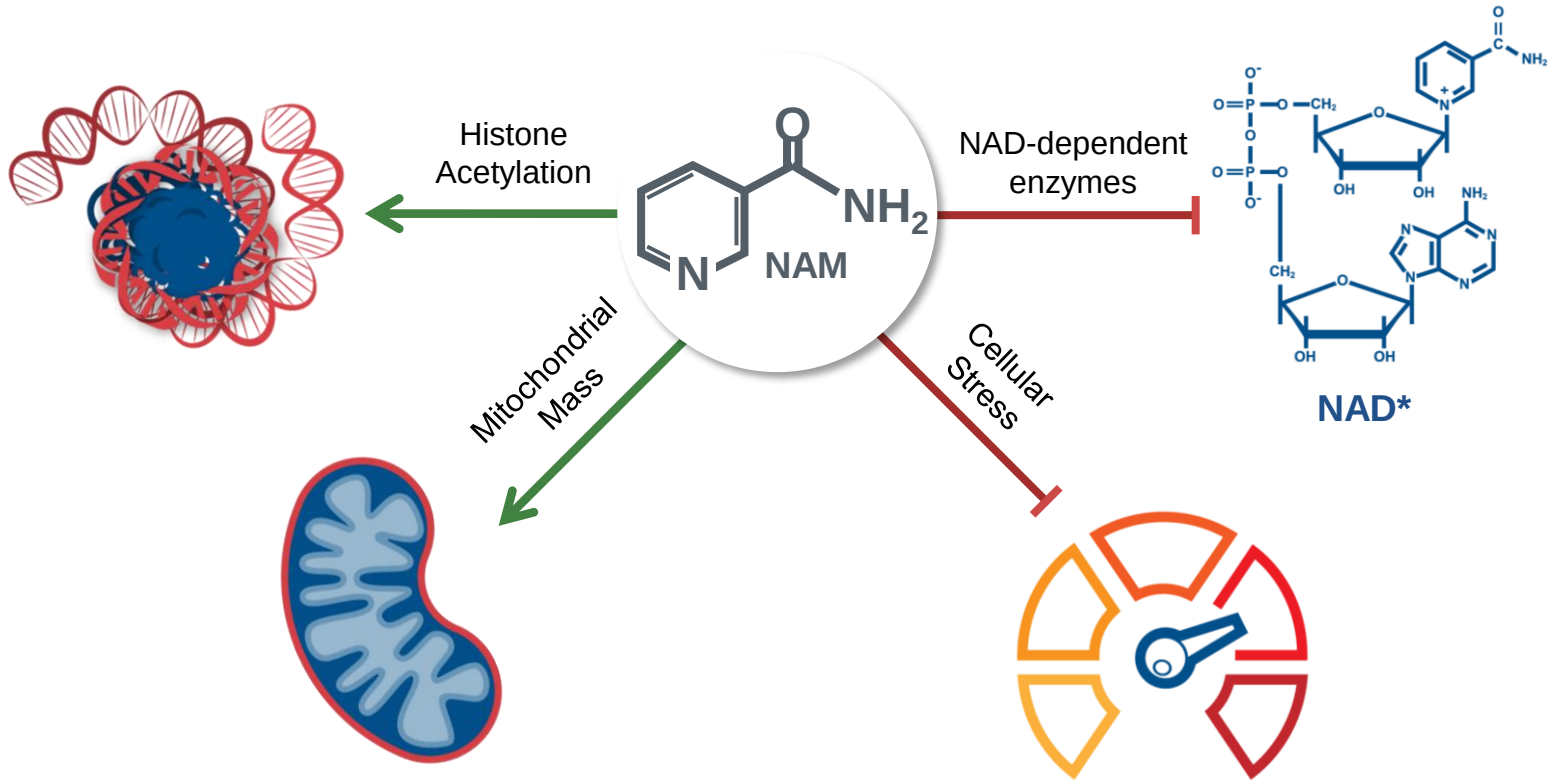
Pipeline Built on Proprietary NAM Platform Technology

NAM Platform Technology

- Enhances the **number** of allogeneic donor cells
- Enhances cellular **functionality** and **phenotype**
- Potential to expand **any cell type**



Omidubicel

A potentially curative treatment for patients in need of a bone marrow transplant

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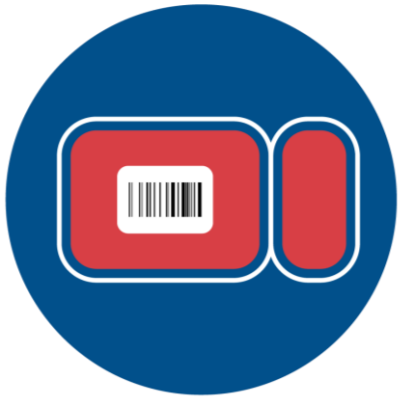
Our Inspiration: Focusing on Cures

Stacey participated in the first clinical study of omidubicel at Duke University Medical Center after being diagnosed with AML.

She has been cancer-free since her bone marrow transplant in 2011.

This is one patient and results may not be indicative. Omidubicel is investigational and safety and efficacy have not been established by any agency.

Omidubicel Is a Cell Therapy Option for Patients in Need of a Transplant



Cord Blood Unit (CBU) Selected

CBU selected by physician from public cord blood bank

Omidubicel

Cultured Fraction

NAM-expanded stem cells cultured using proprietary NAM technology

Non-Cultured Fraction

Immune cells, including T cells

Omidubicel Infusion

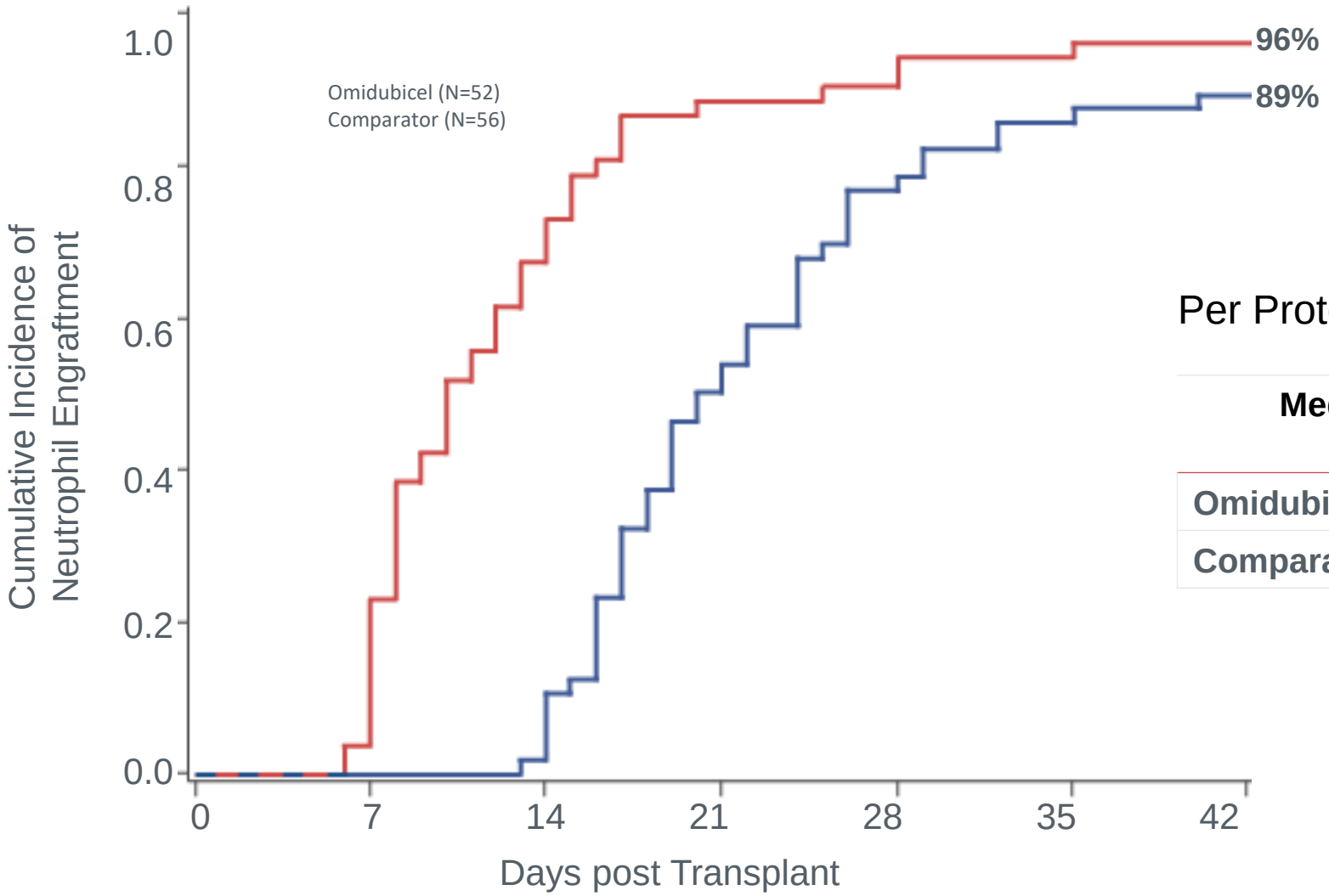
Scalable manufacturing and delivery of omidubicel

Global, Randomized Phase 3 Study Primary Endpoint: Omidubicel Significantly Reduced Time to Engraftment

- 125 patients randomized at 33 sites
  - Age 12-65
  - High-risk hematologic malignancies
  - Eligible for allogeneic bone marrow transplantation
  - No matched donor
- Demographics and baseline characteristics were well-balanced in the two arms
- Omidubicel was generally well-tolerated

INTENT-TO-TREAT	MEDIAN TIME TO NEUTROPHIL ENGRAFTMENT (DAYS)	95% CI	p-VALUE
Omidubicel (N = 62)	12.0	(10.0, 15.0)	p<0.001
Comparator (N = 63)	22.0	(19.0, 25.0)	

Cumulative Incidence of Neutrophil Engraftment

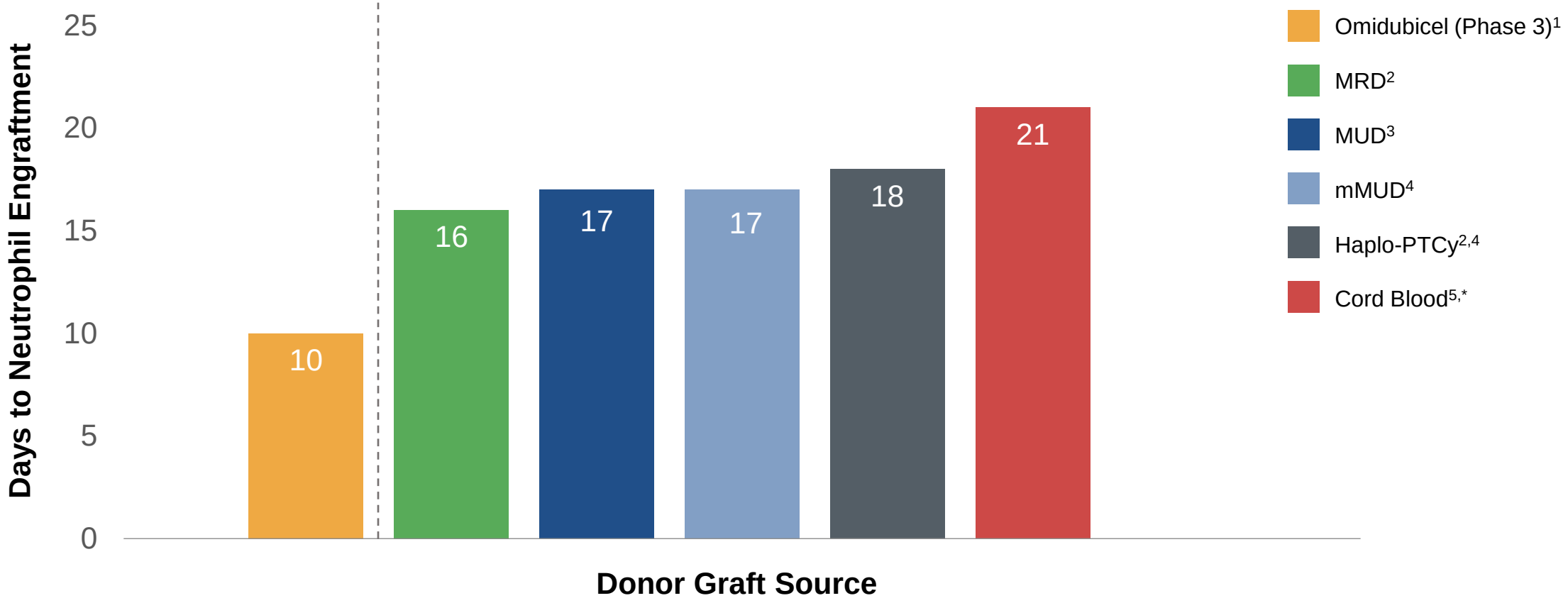


Per Protocol Population (N=108)

Median Time to Neutrophil Engraftment (Days)	P value
Omidubicel: 10.0 (95% CI: 8, 13)	p<0.001
Comparator: 20.5 (95%CI: 18, 24)	

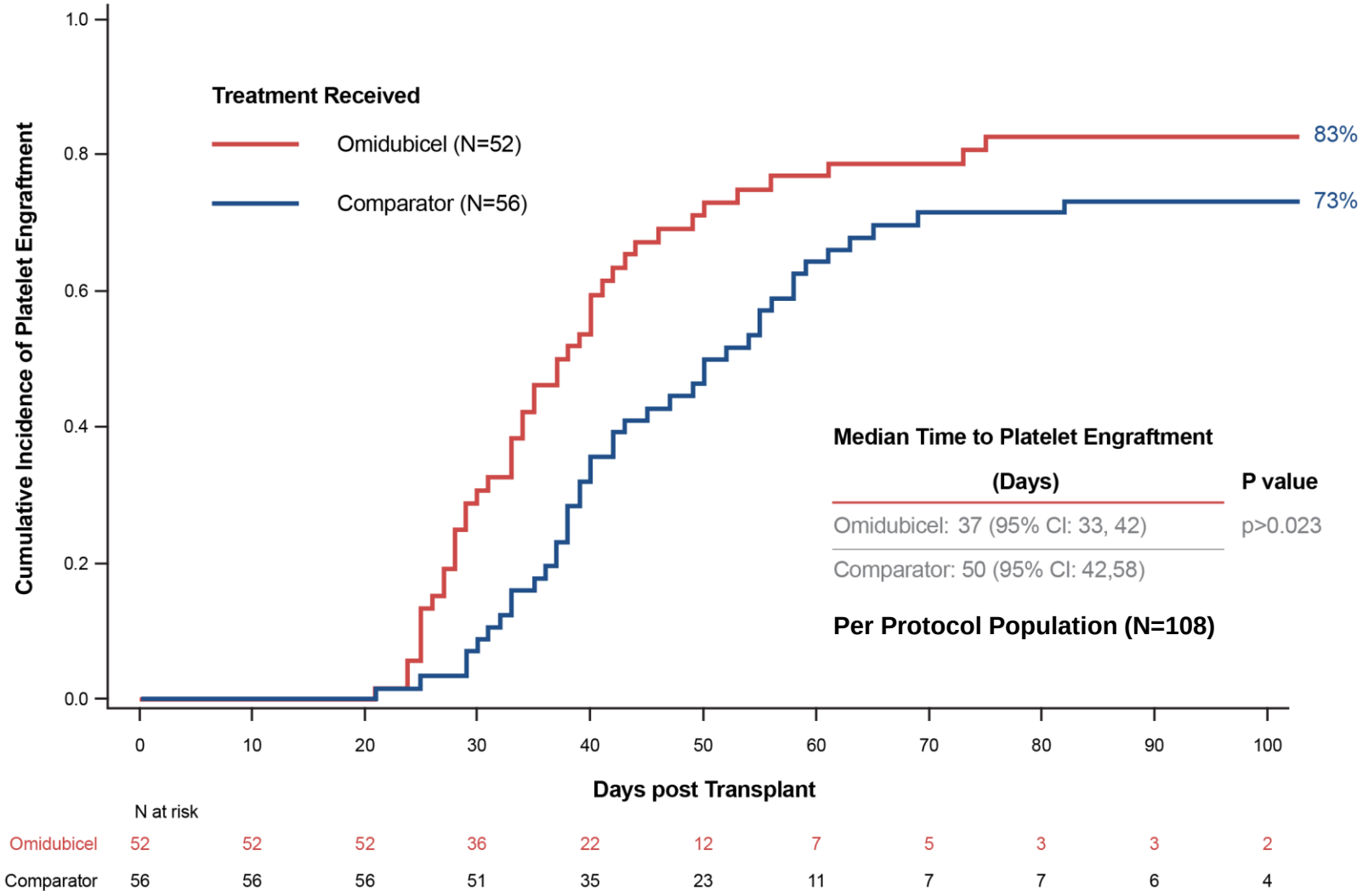
Per protocol population: received transplantation with omidubicel or comparator per protocol.

Omidubicel has Shortest Neutrophil Engraftment Time Compared to Published Results for Other HSCT Donor Sources



1. Clinica trial; 2. Salvatore D, et al. Haematologica. 2018; 103(8):1317-28; 3. Mary M. Horowitz, MD, MS. Haploidentical Transplantation: The Answer to our Donor Problems? CIBMTR, Medical College of Wisconsin. January 2017; 4. McCurdy SR, et al. Adv Hematol. 2015; 1-9.; 5. Horwitz ME, et al. J Clin Oncol. 2018; 37(5):367-74.
* Results represent double-cord transplants

Phase 3 Secondary Endpoints: Day 100 Platelet Engraftment



Per protocol population: received transplantation with omidubicel or comparator per protocol.

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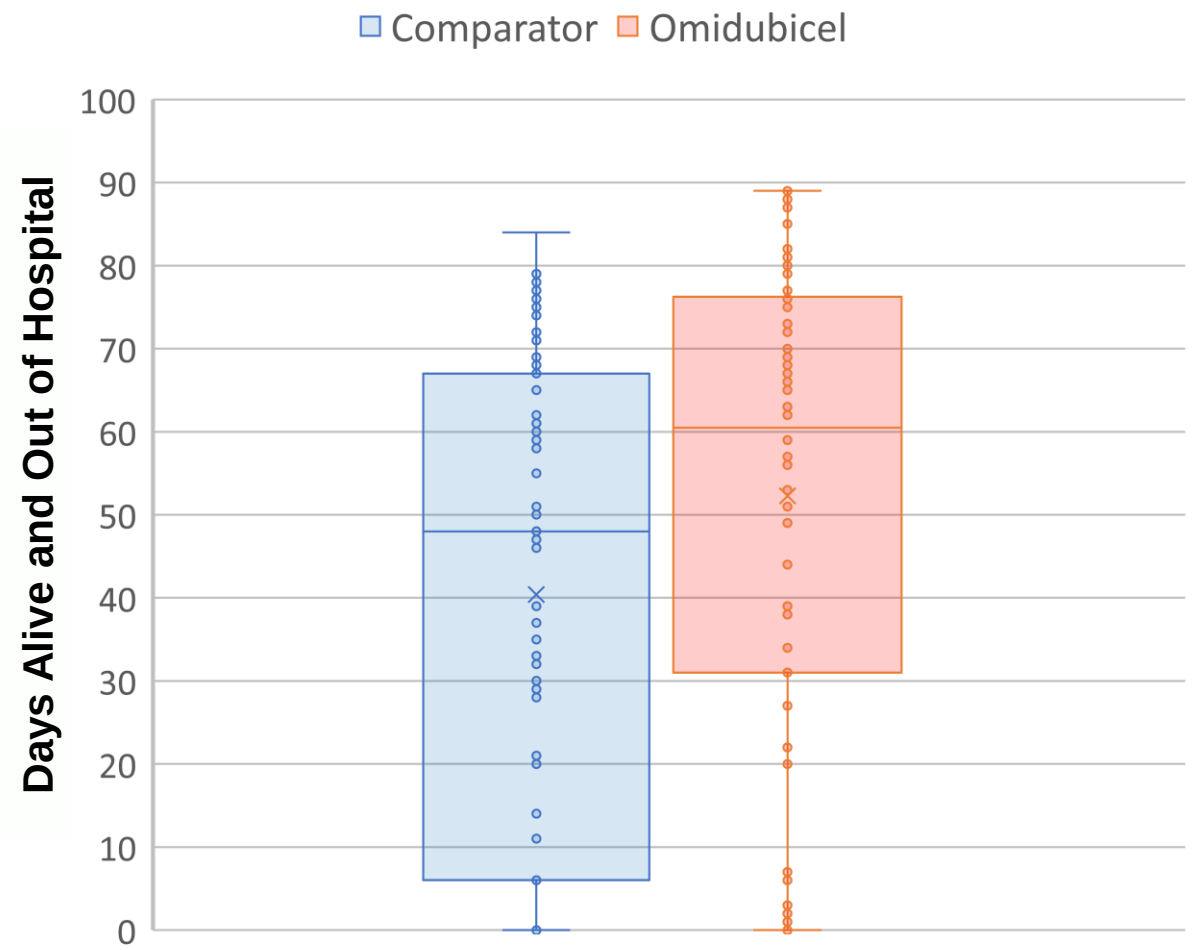
Phase 3 Secondary Endpoint:
Omidubicel Significantly Reduced Total Hospitalization in First 100 Days

ALIVE AND OUT OF HOSPITAL IN FIRST 100-DAYS



Omidubicel: Median 60.5 days
Comparator: Median 48.0 days
p = 0.005

Population: ITT

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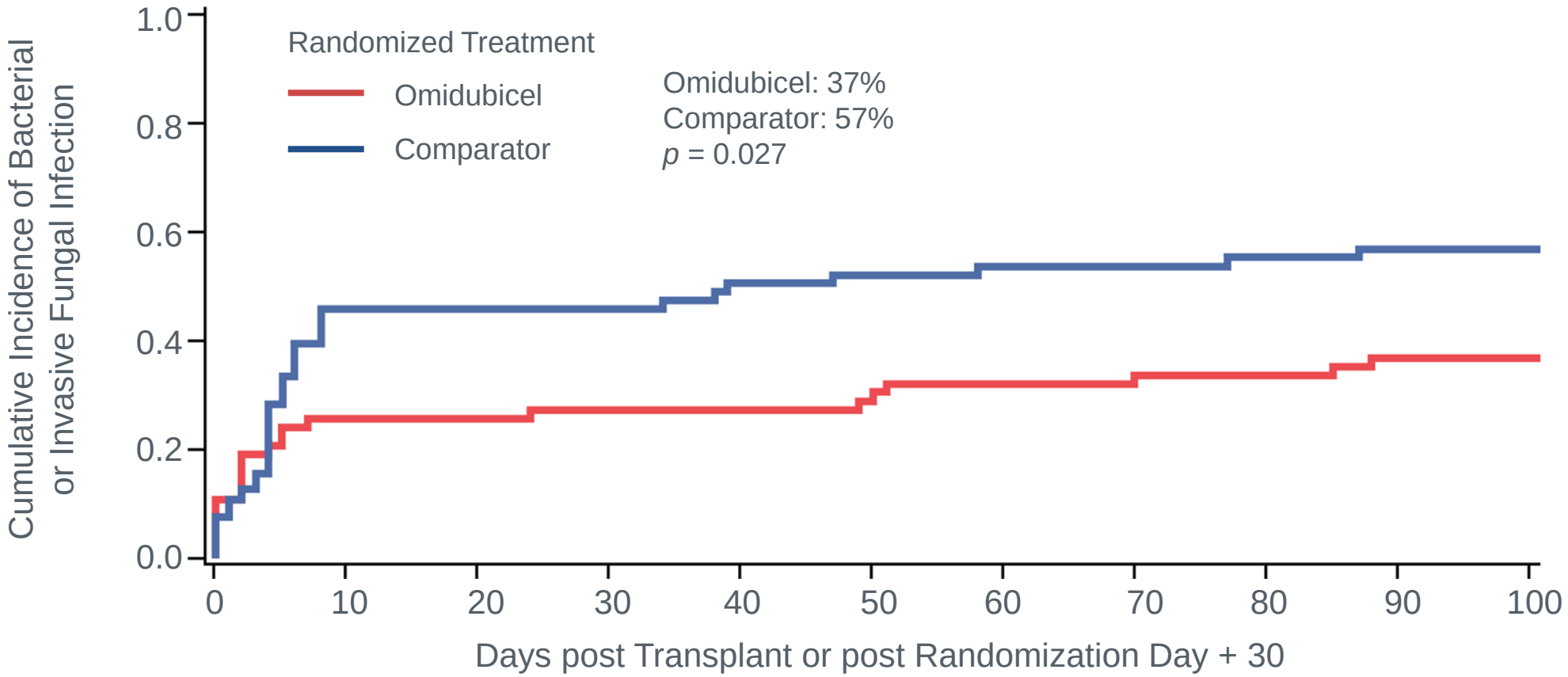
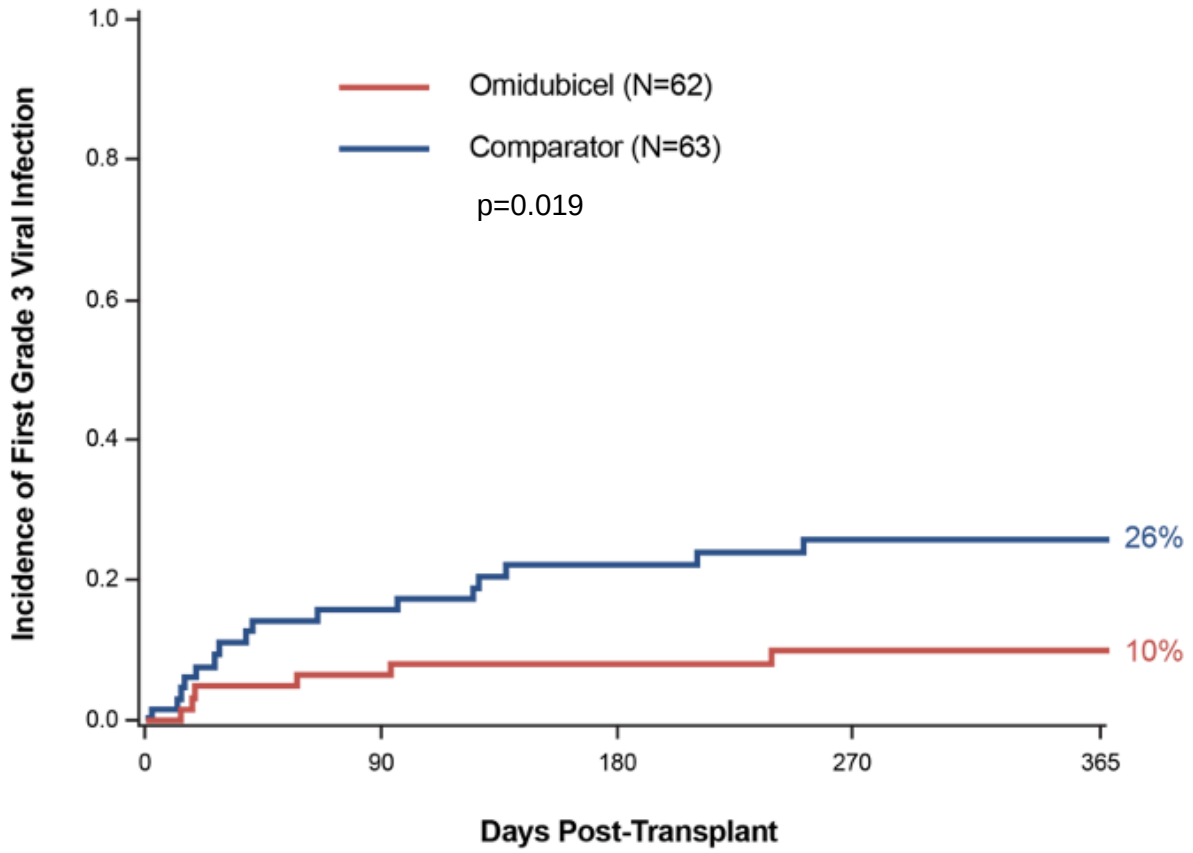
Phase 3 Secondary Endpoint:
Omidubicel Significantly Reduced Serious Infection Rate

INCIDENCE OF SERIOUS BACTERIAL OR FUNGAL INFECTIONS BETWEEN RANDOMIZATION AND 100 DAYS[1]



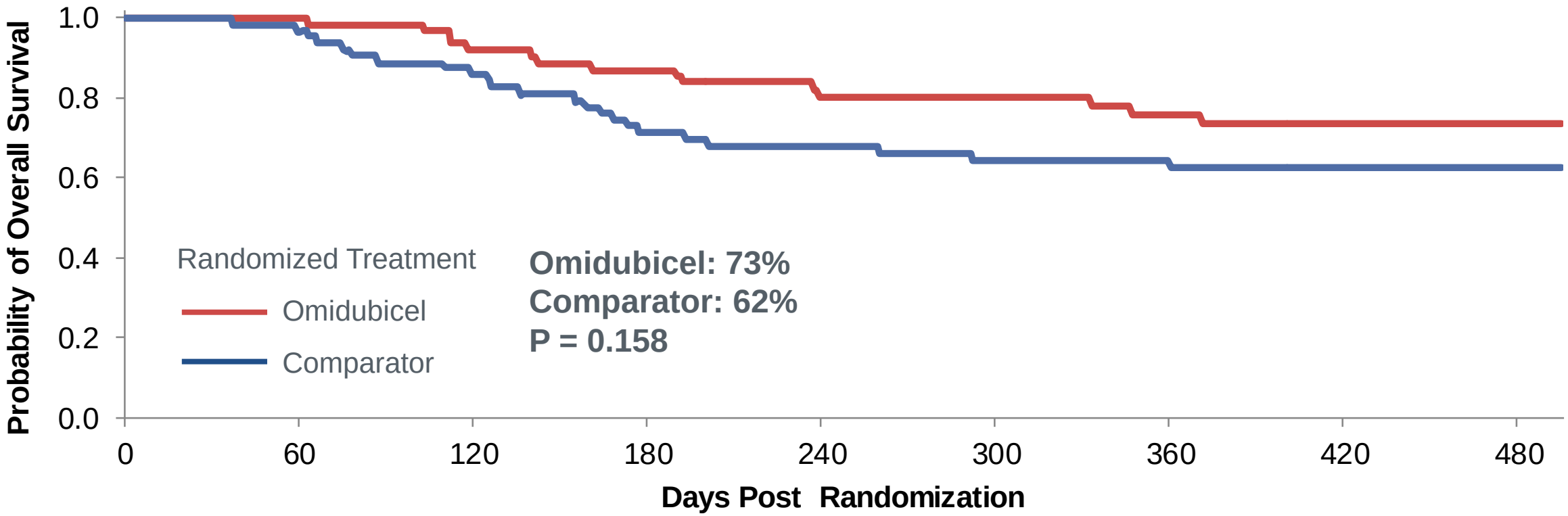
1. Proportion (%) of patients with any grade 2-3 bacterial infection or invasive fungal infection between randomization and 100 days following transplantation

Fewer Viral Infections in Recipients of Omidubicel



Phase 3 Exploratory Endpoint: Overall Survival at 15 Months (ITT)

OVERALL SURVIVAL AT 15 MONTHS AFTER RANDOMIZATION (ITT), MEDIAN FOLLOW-UP (~10 MONTHS)



Omidubicel is investigational and safety and efficacy have not been established by any agency.

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Omidubicel

Commercial Potential and Launch Readiness

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Omidubicel Vision

Omidubicel may be the next-generation cell therapy for allogeneic transplant that delivers a universal solution for a cure

Supporting Reasons to Believe:

1. Matches over 95% of all patients
2. >40% of patients in the clinical trial were ethnically diverse
3. Removed concern about age/availability of donor
4. Reliable neutrophil engraftment in over 96% of patients
5. Rapid neutrophil engraftment (median 10 days)

Due To Roadblocks Along The Way, Only 23% Of Patients Ultimately Receive An HSCT

42,000 Allo-Transplant Candidates

23% Transplanted

Today's Donor Sources

- Umbilical Cord Blood (UCB)
- Matched Related Donor (MRD)
- Matched Unrelated Donor (MUD)
- Mismatched Unrelated Donor (mMUD)
- Haploidentical Donor

77% Not Transplanted

Donor Factors

- Availability of Graft
- Suitability of Graft
- Timing of Graft

Clinical Factors

- Patient Age
- Performance Status
- Disease and Stage
- Comorbidities

Non-Clinical Factors

- Patient Decision Not To Proceed
- Psychosocial Factors
- Travel Required
- Lack of a Suitable Caregiver

Source: ZS Associates, Quantitative Demand Study, n=107 US transplanters; CIBMTR transplant volume

Omidubicel is investigational and safety and efficacy have not been established by any agency.

Omidubicel Has the Potential To Expand Access and Improve Outcomes

In market research, physicians indicated that omidubicel would expand access and improve outcomes

Improve Outcomes

Today's Donor Sources

- Umbilical Cord Blood (UCB)
- Matched Related Donor (MRD)
- Matched Unrelated Donor (MUD)
- Mismatched Unrelated Donor (mMUD)
- Haploidentical Donor

~1,200

Expand Access

Donor Factors

- Availability of Graft
- Suitability of Graft
- Timing of Graft

Clinical Factors

- Patient Age
- Performance Status
- Disease and Stage
- Comorbidities

Non-Clinical Factors

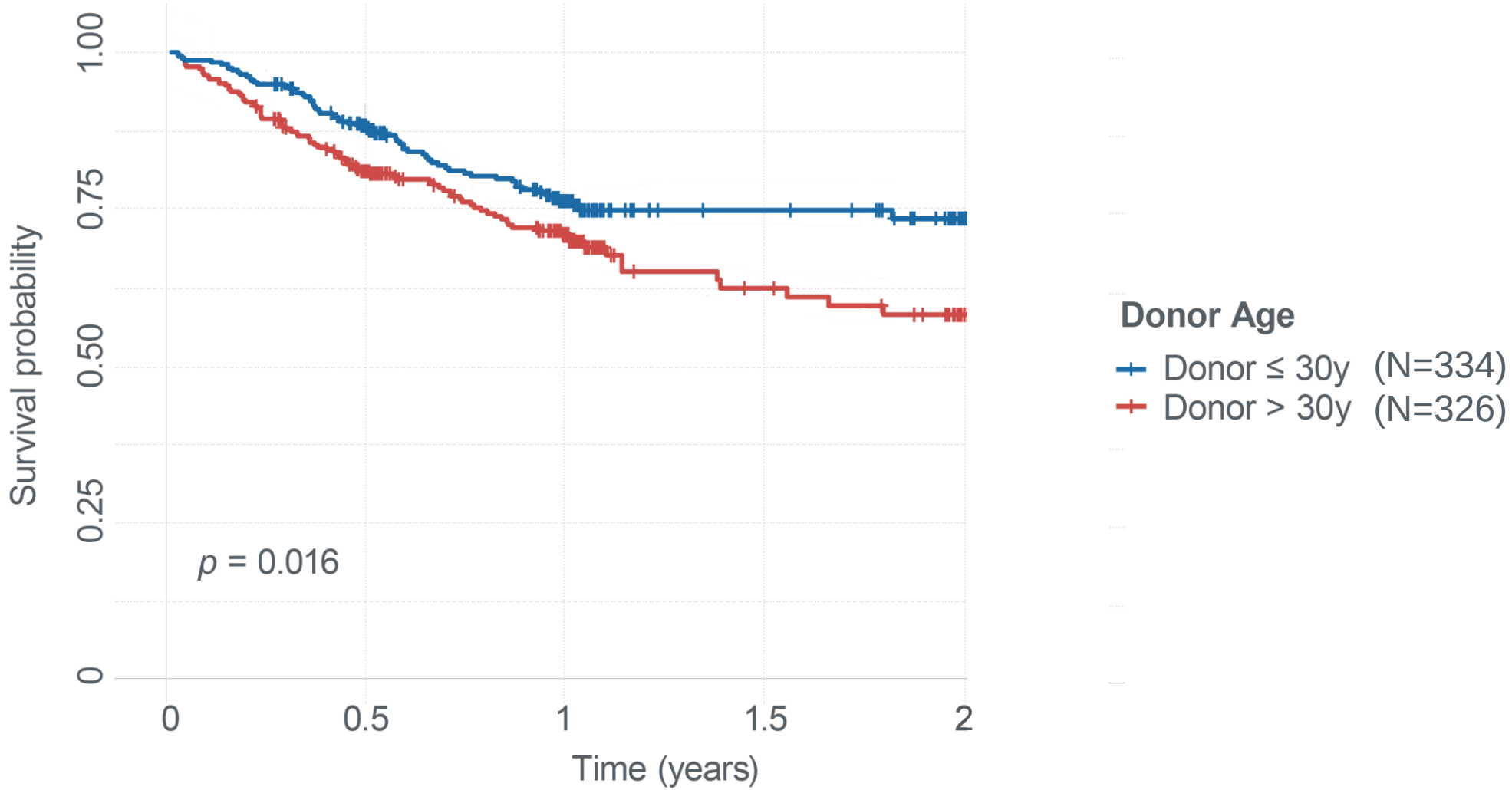
- Patient Decision Not To Proceed
- Psychosocial Factors
- Travel Required
- Lack of a Suitable Caregiver

~1,200

Source: ZS Associates, Quantitative Demand Study, n=107 US transplanters; CIBMTR transplant volume. Numbers estimated in 2025 based on peak share.

Omidubicel is investigational and safety and efficacy have not been established by any agency.

Overall Survival with Follow up is Associated with Donor Age



Source: CIBMTR
*These are retrospective data of CIBMTR dataset, patients undergoing myeloablative MUD, MMUD, or haplo 2017-2019

Key Commercial Activities and Infrastructure Build-out Are Underway to Prepare for a Successful Omidubicel U.S. Launch

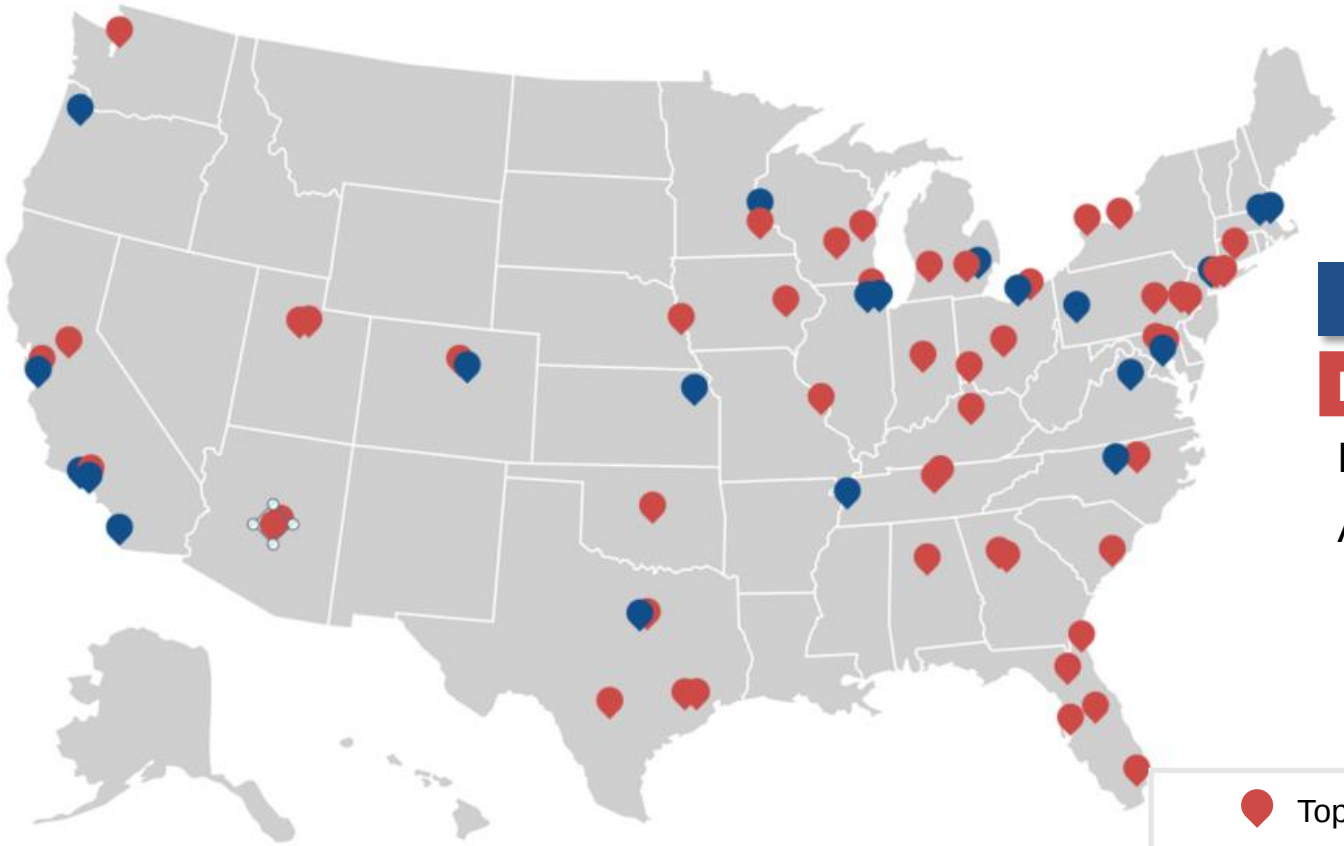
1. Educating transplant centers
2. Working with payers to ensure reimbursement
3. Building patient and hospital support services
4. Ensuring commercial manufacturing readiness

Key Focus: Positive Patient Experience

Gamida Cell Has Initiated Plan for Education of U.S. Transplant Centers

1

Approximately 70 transplant centers account for ~80% of bone marrow transplants in U.S.



Field Force Benchmarks	
Field Force Team	**Industry Surrogates**
Medical Science Liaisons	10 – 15 FTEs
Account Manager	25 – 30 FTEs

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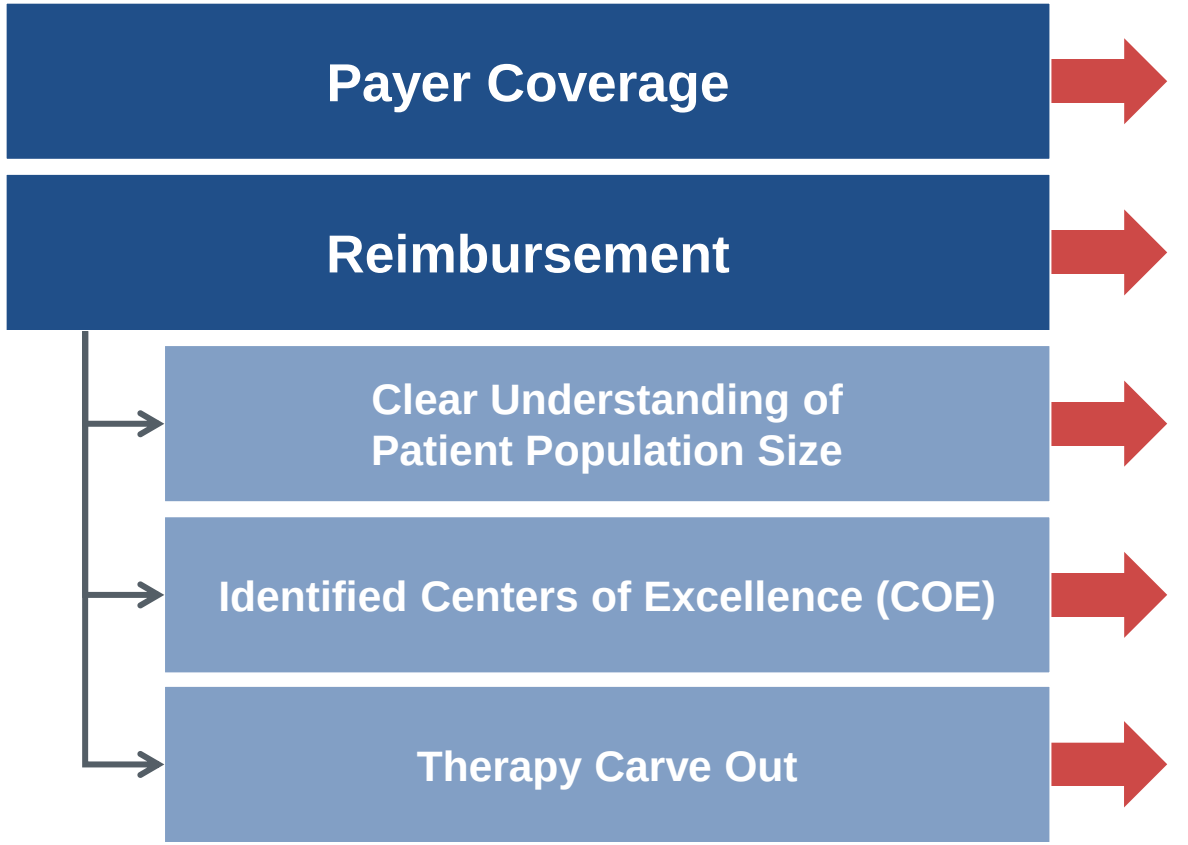
Preparing for Reimbursement

2

Gamida Cell has conducted research to understand the reimbursement approaches that payers will take if omidubicel receives FDA approval



- Published data supports that ~100% of U.S. payers anticipate covering one-time therapies with curative intent
- Gamida has a good understanding of the Reimbursement approach that payers will take upon omidubicel FDA approval
- Market is well defined, and payers can calculate their potential covered lives
- 70 centers make up 80% of transplants
- Initial payer market research identified carve out as the most likely reimbursement approach at time of approval
- Establish the appropriate codes for carve outs

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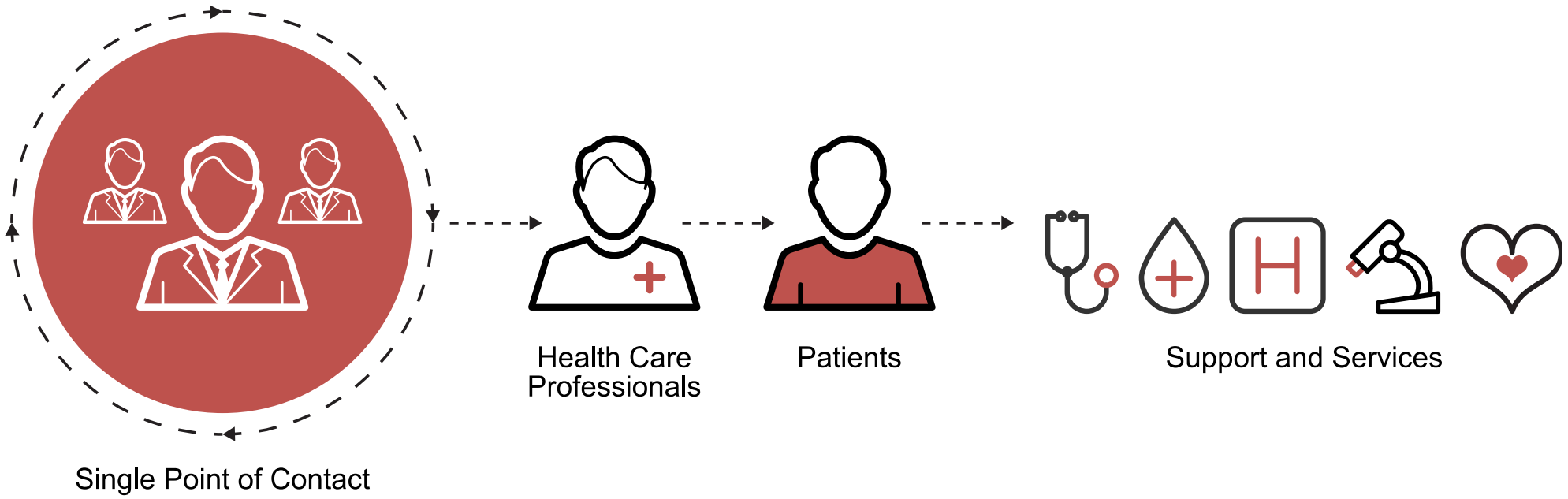
Gamida Cell Assist Will Be a Key Aspect of Our Patient-centric Launch

3

Building a patient support operation to provide the assistance and services to healthcare professionals, patients, and caregivers that will support access to our therapy and strive to ensure a positive personalized experience



- We are a support and solutions-oriented team that will provide a personalized, high touch experience
- Gamida Cell Assist will provide a single point of contact for patients and health care professionals
  - Through this, we will provide support and services throughout the therapy process
- Our focus is on keeping operations simple with the flexibility and agility needed to address the needs of each patient who requires cell therapy

Manufacturing Readiness on Track to Support Potential Launch Mid-2022

4

Dual sourcing for manufacturing established for commercialization of omidubicel:

Kiryat Gat (Israel)

- Gamida Cell owned facility
- Construction completed in 2020 and hiring complete for initial team
- Qualification for BLA filing underway

Photo of Gamida Cell-owned facility.

Lonza (CMO)

- Well recognized cell and gene therapy manufacturer
- Manufacturing partner for the omidubicel Phase 3 study*

*Phase 3 manufacturing was conducted at Lonza facility in Maryland; Commercial manufacturing will be in the Lonza Netherlands facility

NK Cell Pipeline

Harnessing Innate Immunity Using Natural Killer (NK) Cells to Treat Cancer

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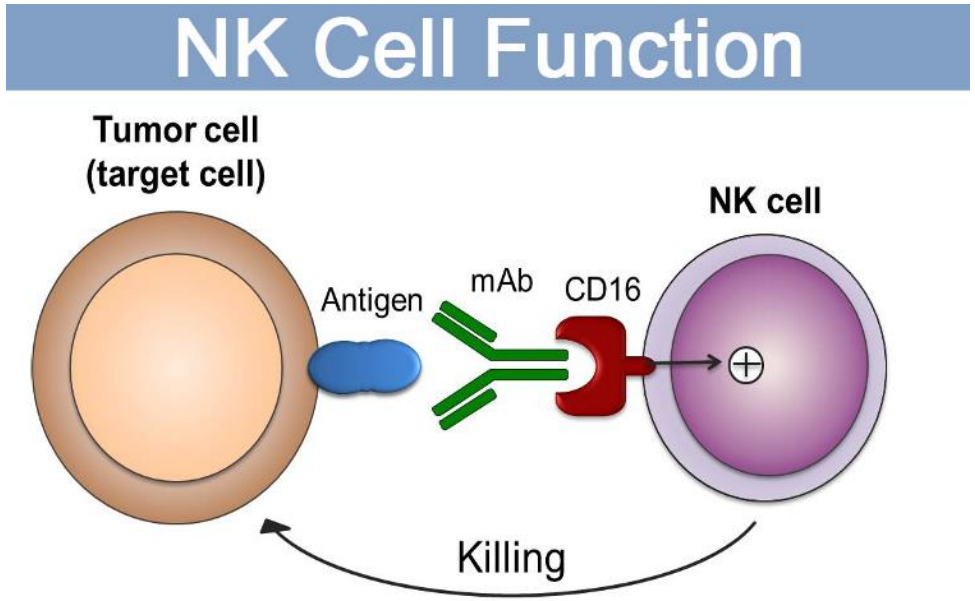
Putting NK Cells to Work Using Our NAM Technology Platform

Benefits of NK Cells

- Natural killer (NK) cells infusion is a promising immune therapy for cancer
  - No HLA matching required
  - Synergy with antibodies
  - Potential for off-the-shelf therapy
- Expansion is necessary to obtain clinically meaningful doses with retained cell function



Off-The-Shelf Manufacturing with NAM Expansion

NAM rejuvenates NK cell preservation during expansion and cryopreservation

Allogenic NK cells collected by apheresis

HEALTHY DONOR

A single donor can produce multiple clinical doses

Seed CD3- cells from apheresis material

DAY 0

Proprietary expansion with NAM +IL-15 + autologous irradiated CD3+ feeder cells

Highly functional NK cells: ~50-100 billion NK cells with purity >99%

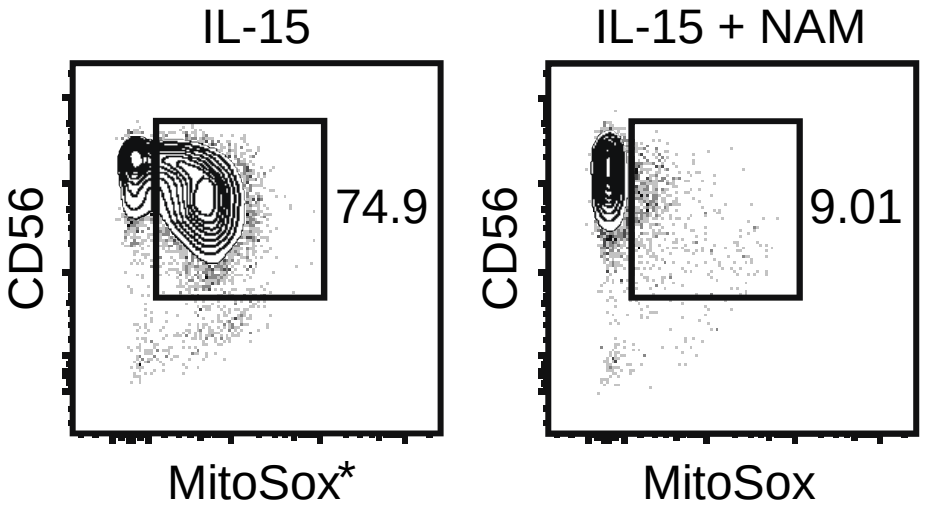
DAY 14

Proprietary cryopreservation and infusion ready

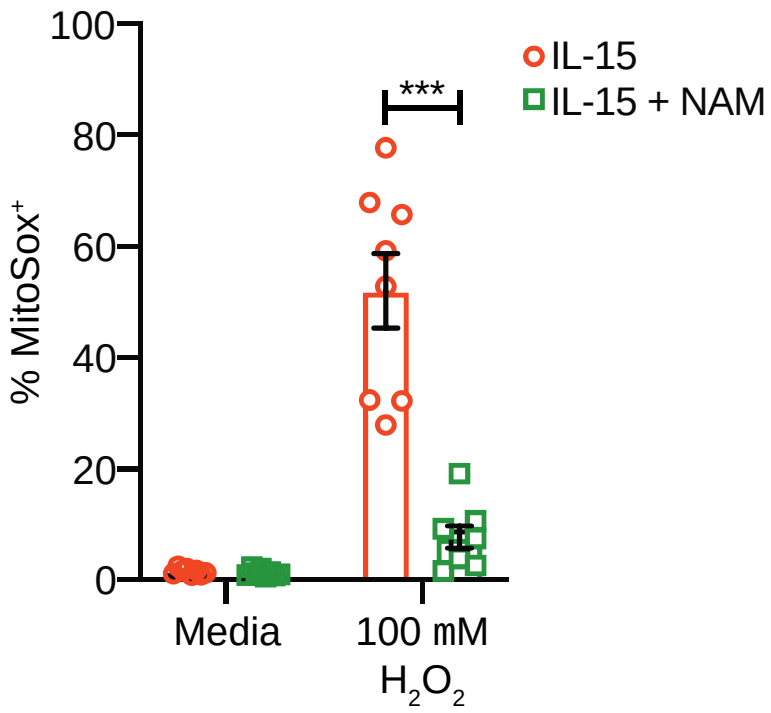
One apheresis procedure can provide several clinical doses

NAM NK Induces Strong Protection Against Oxidative Stress

NK cells were expanded with IL-15 and with or without NAM



NAM-expanded NK cell mitochondria produce decreased levels of lethal superoxide (labeled with fluorescent marker) when the cells are challenged with hydrogen peroxide, reducing oxidative stress.



F. Cichocki, presented at the American Association of Immunologists (AAI) conference, May 2021

*MitoSox measures superoxide

GDA-201

NAM-Enabled NK Cells to Treat Non-Hodgkin Lymphoma

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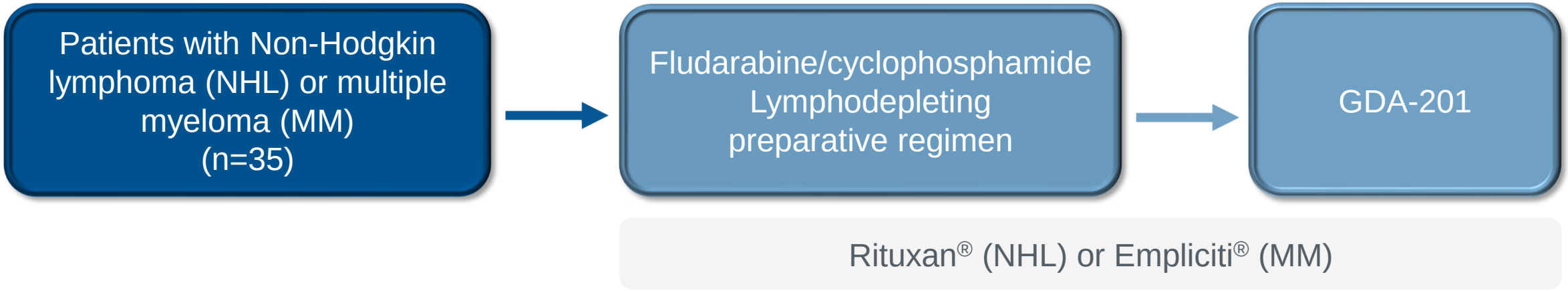
Phase 1 Study of GDA-201 in Patients with Non-Hodgkin Lymphoma and Multiple Myeloma



- **Primary endpoint:** Maximum tolerated dose of GDA-201 (3 doses evaluated)
- **Secondary endpoints:** Overall response, toxicity

ClinicalTrials.gov Identifier NCT03019666.

Clinical Responses Observed in NHL Cohort

19 PATIENTS WITH NHL	Follicular Lymphoma (FL) (n=10)	Diffuse Large B-Cell Lymphoma (DLBCL) (n=8)
13 CR	8 CR	5 CR
1 PR	1 PR	
5 PD		
ORR: 74%		
CR rate: 68%		

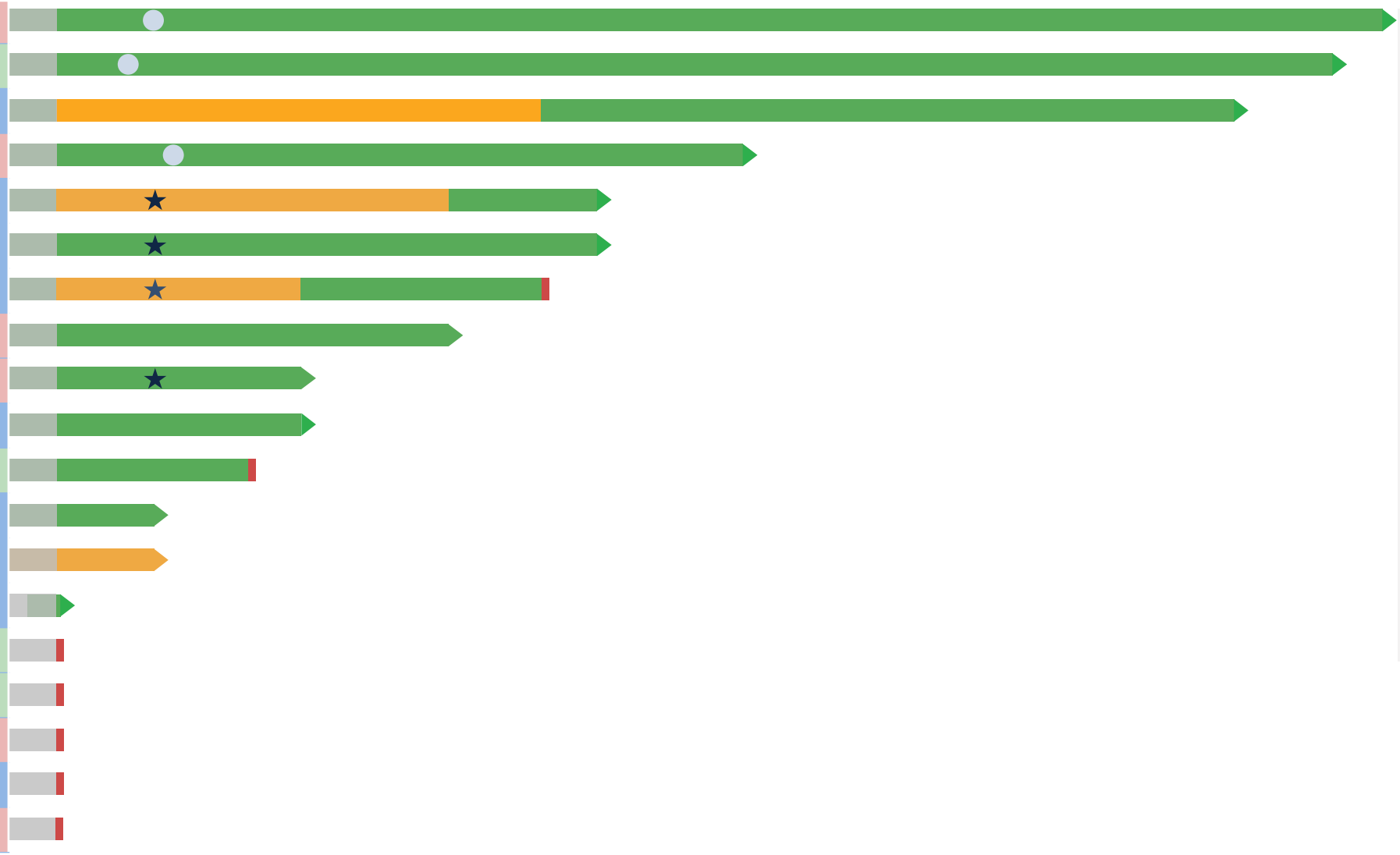
Safety Summary

- 35 patients treated (19 NHL, 16 MM)
- No dose limiting toxicities
- One patient died of E. coli sepsis, initially reported as CRS
- Most common grade 3/4 adverse events:
  - Thrombocytopenia (n=9)
  - Hypertension (n=5)
  - Neutropenia (n=4)
  - Febrile neutropenia (n=4)
  - Anemia (n=3)
- No neurotoxic events, graft versus host disease, or confirmed CRS

NHL: non-Hodgkin lymphoma; MM: multiple myeloma; CRS: cytokine release syndrome

GDA-201 Is Highly Active in Non-Hodgkin Lymphoma

PT#	DIAGNOSIS
004	FL
005	FL
009	DLBCL
023	FL
026	DLBCL
027	DLBCL
019	DLBCL
030	FL
033	DLBCL
029	FL
002	FL
036	FL
031	FL
037	FL
001	DLBCL
003	DLBCL
024	MCL
028	DLBCL
035	FL

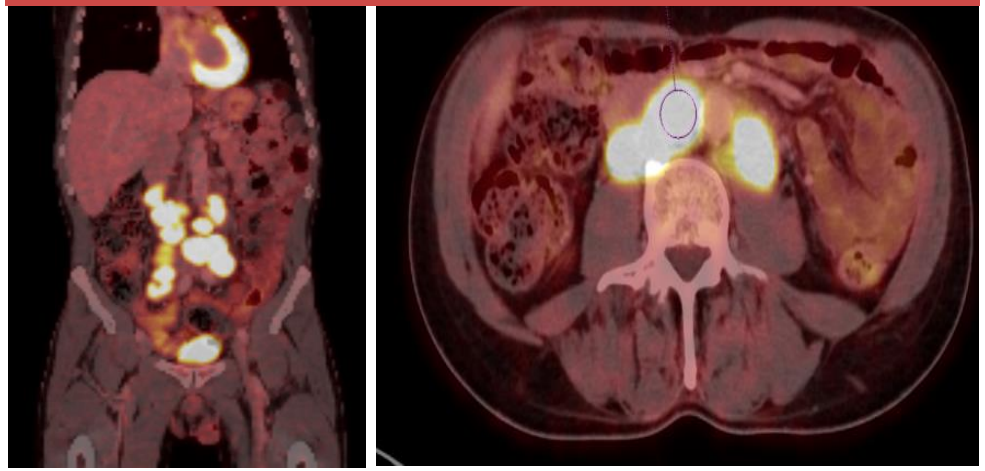


Bachanova et al., ASH 2020

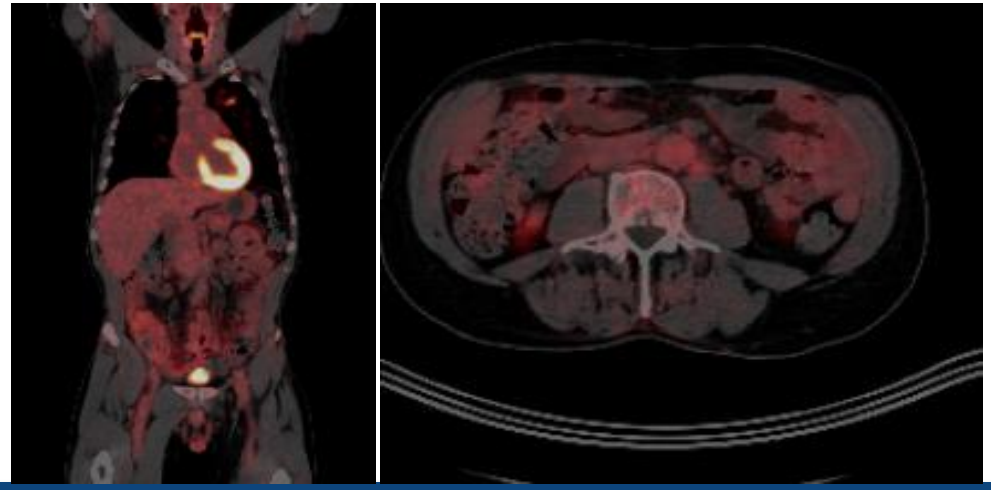
Note: Cohort 1 dose = 2.0 x 10^7 cells / kg; Cohort 2 dose = 1.0 x 10^8 cells / kg; Cohort 3 dose = 2.0 x 10^8 cells / kg

Complete Response in Heavily Pretreated Lymphoma Patient

Pt 009: Baseline



Pt 009: 6-month post GDA-201



- 57-year-old man with history of CLL and Richter's transformation-large cell lymphoma, measurable retroperitoneal lymph nodes at baseline
- Prior therapy: FCR-light, Rituximab/Bendamustine Ibrutinib/Revlimid, R-CHOP, Venetoclax/Rituximab
- Allogeneic HSCT (matched sibling)
- Relapse at 6 months
- Treated with GDA-201
- 28-day response: Tumor shrinkage
- 6 months: PR with continued tumor shrinkage
- 12 months: Complete response

Bachanova et al. ASH 2019.

This is one patient and results may not be indicative. GDA-201 is investigational and safety and efficacy have not been established by any agency.

GDA-201: Encouraging Clinical Activity and Safety Profile Supports Continued Development

Key Accomplishments

- Preclinical proof of principle
- Clinical proof of concept
- Maximum target dose achieved

Next Step

Phase 1/2 multi-center study in lymphoma for cryo-preserved GDA-201 in H2 2021

Engineered NK Cell Programs

Improving Targeting and Persistence Against Blood and Solid-Tumor Cancers

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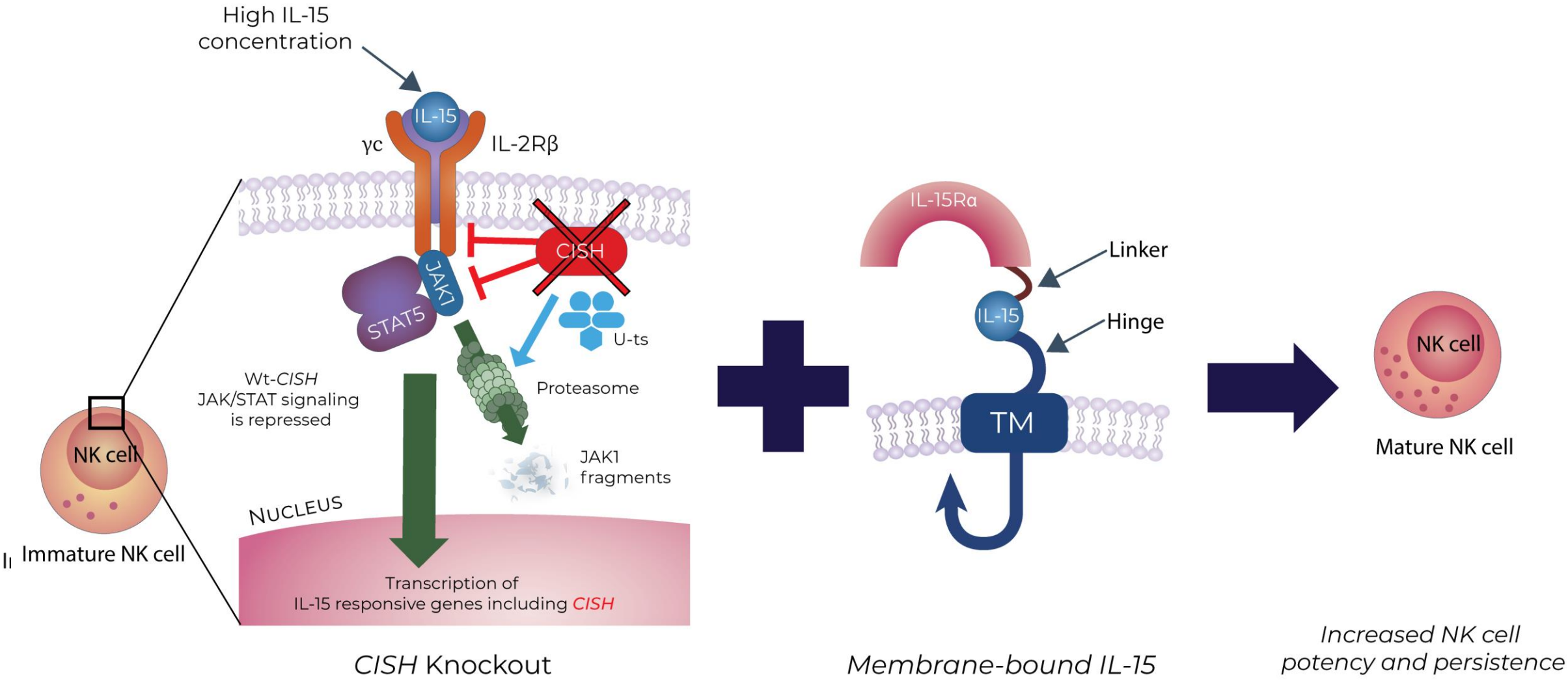
A Leading Genetically Engineered NK Cell Pipeline

Four new programs applying a clinically tested NAM-enabled cell source armed with promising strategies for overcoming immunosuppression

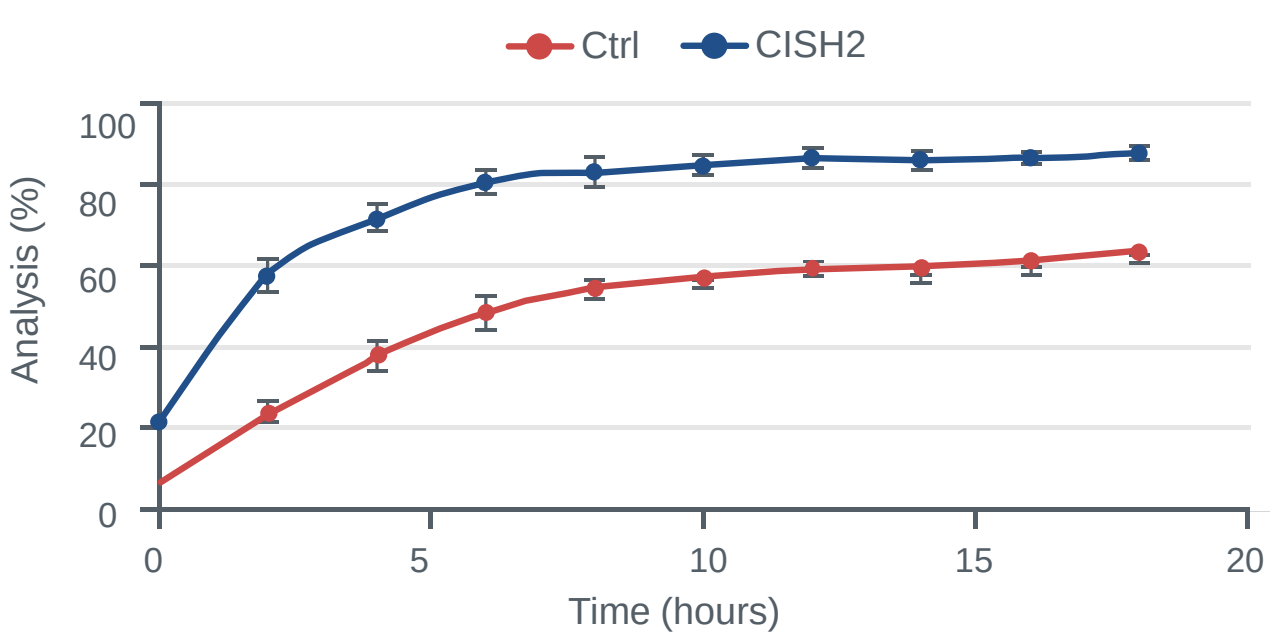
PROGRAM	STRATEGY	GENETIC MODIFICATION	INDICATION(S)
GDA-301	Increased potency and persistence	*CISH* KO + membIL-15	Solid tumors
GDA-401	Undisclosed	Undisclosed	Undisclosed
GDA-501	HER2 Targeting	HER2 CAR	HER2+ solid tumors
GDA-601	CD38 Targeting	CD38 KO + CD38 CAR	Multiple myeloma

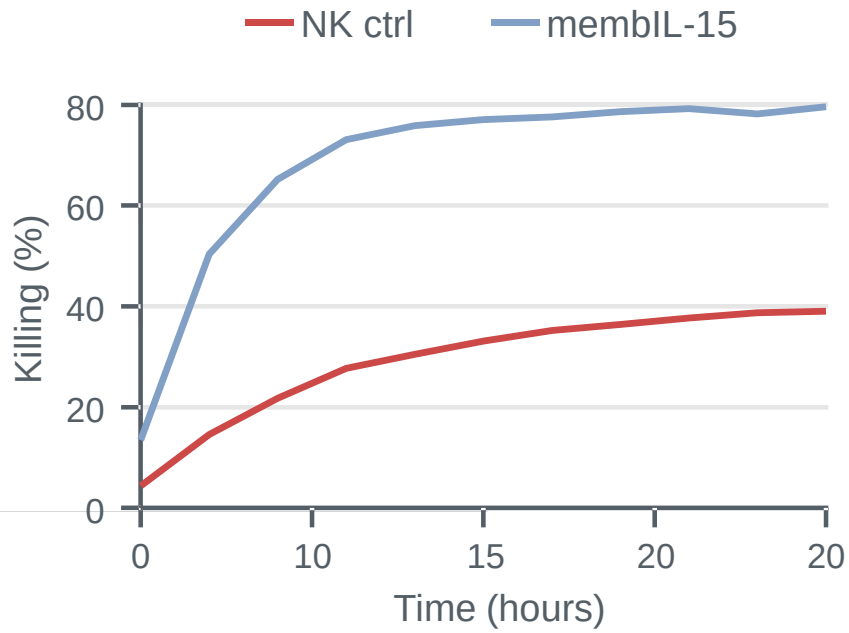
memb-IL15 = Membrane-bound IL-15
KO = Knockout
CAR = Chimeric antigen receptor
HER2 = Human epidermal growth factor receptor 2

GDA-301: Increasing NK Potency and Persistence



GDA-301: *CISH* KO and Membrane-Bound IL-15 Increase Cytotoxicity Against Tumor Cell Lines





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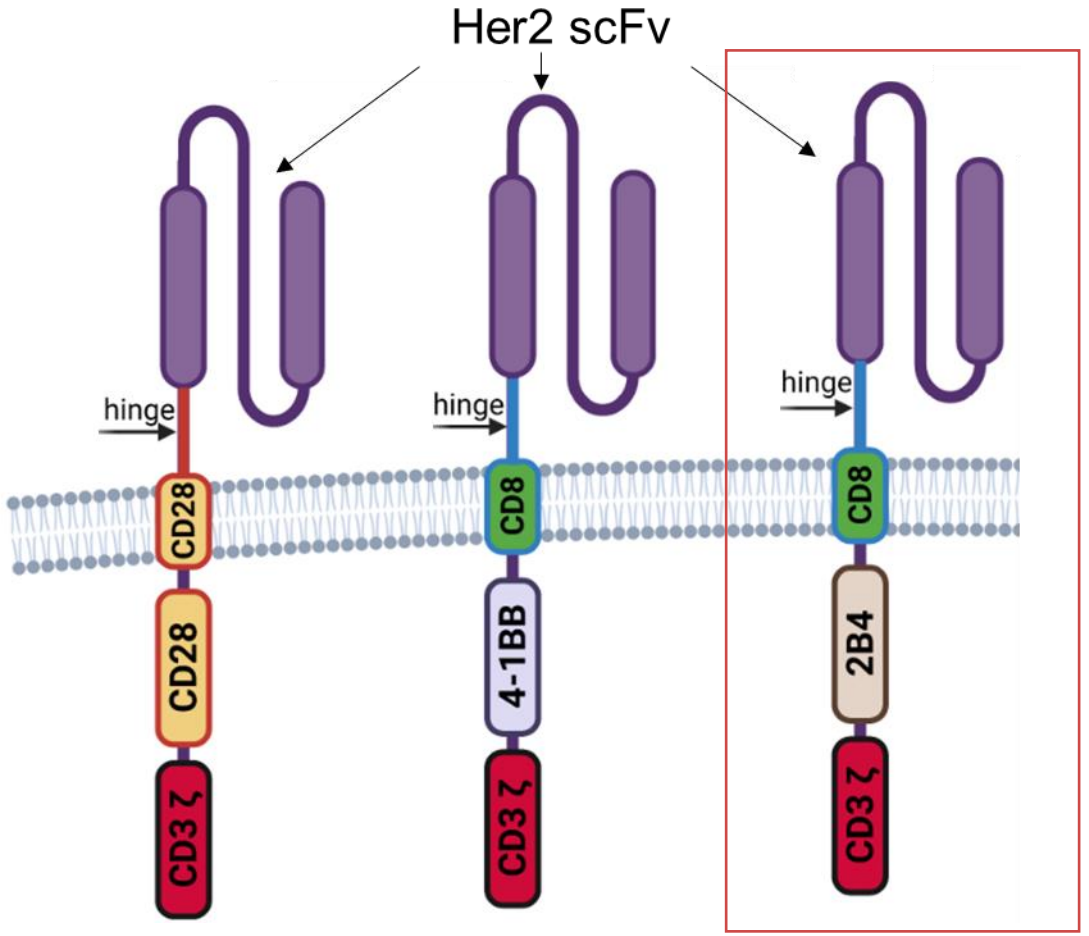
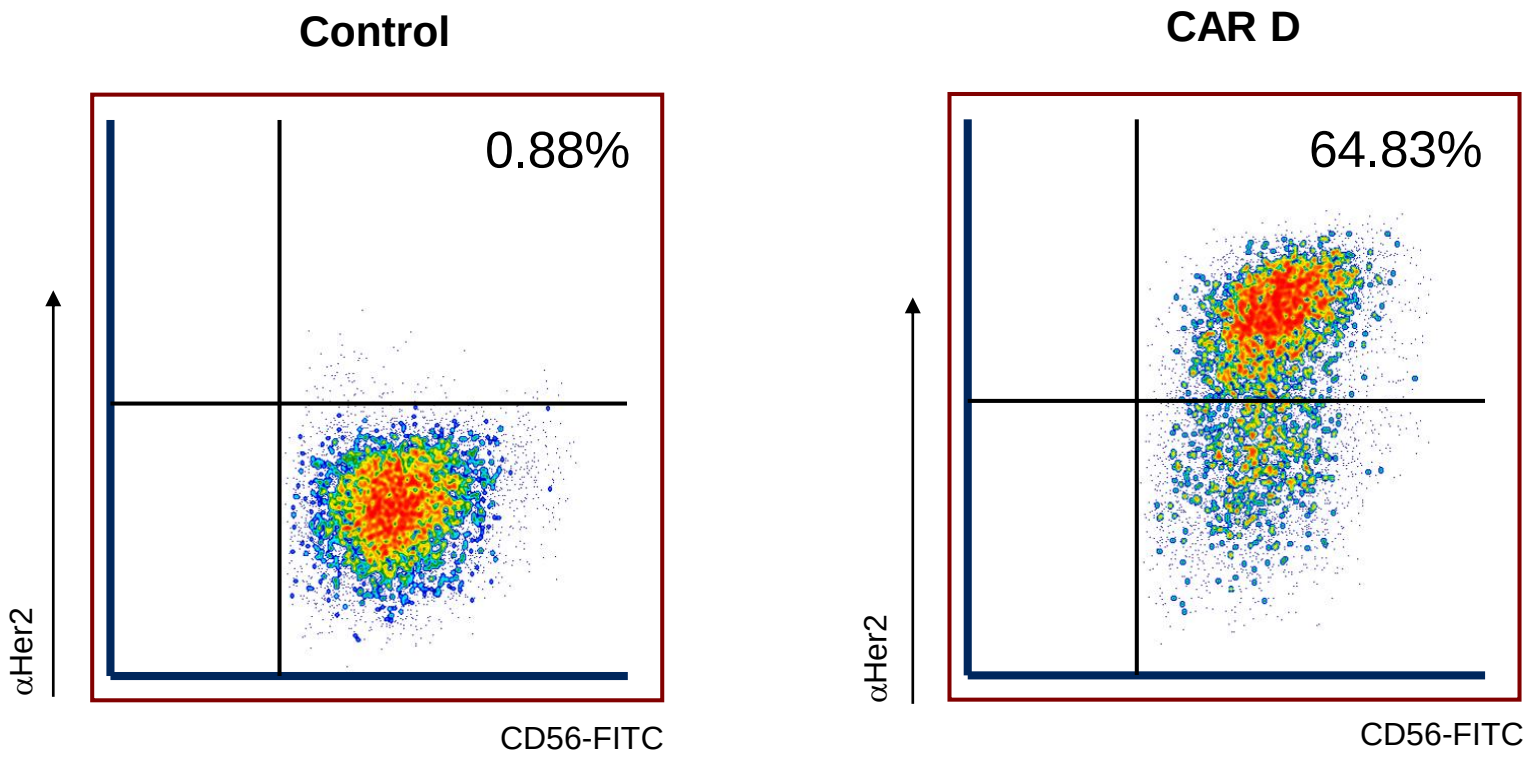
GDA-501: Targeting HER2+ Solid Tumors

Three CAR constructs were developed to target and activate NK cells against HER2+ tumors



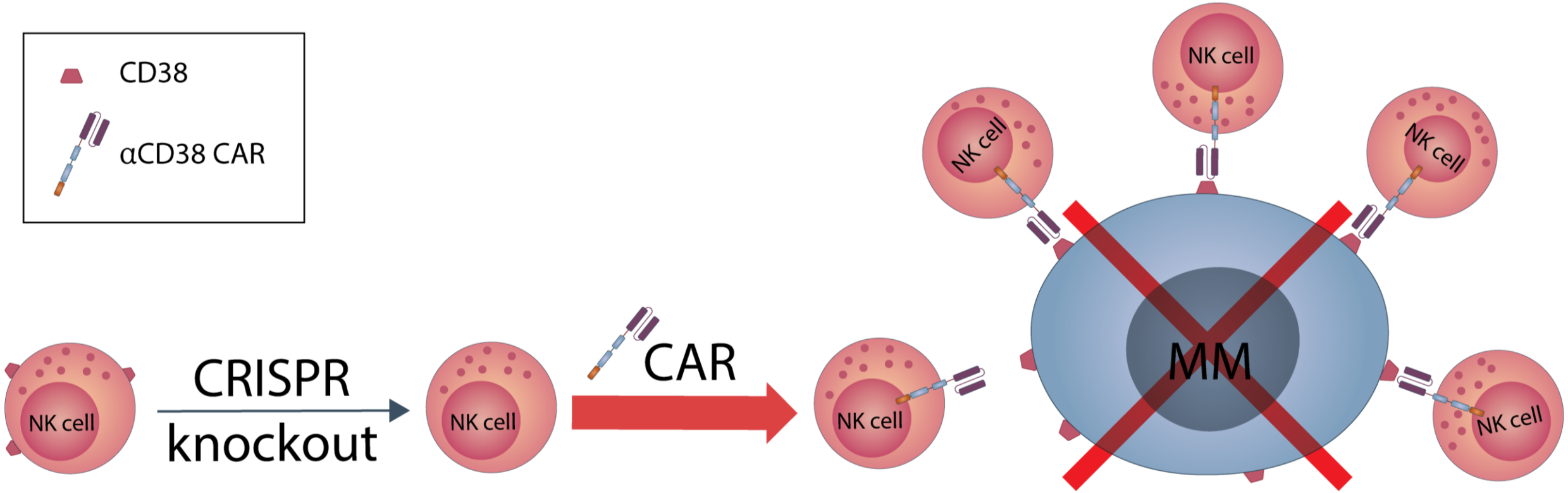
GDA-501: HER2 CAR Constructs Proof of Concept

CAR construct is expressed by NK cells and recognizes the HER2 protein



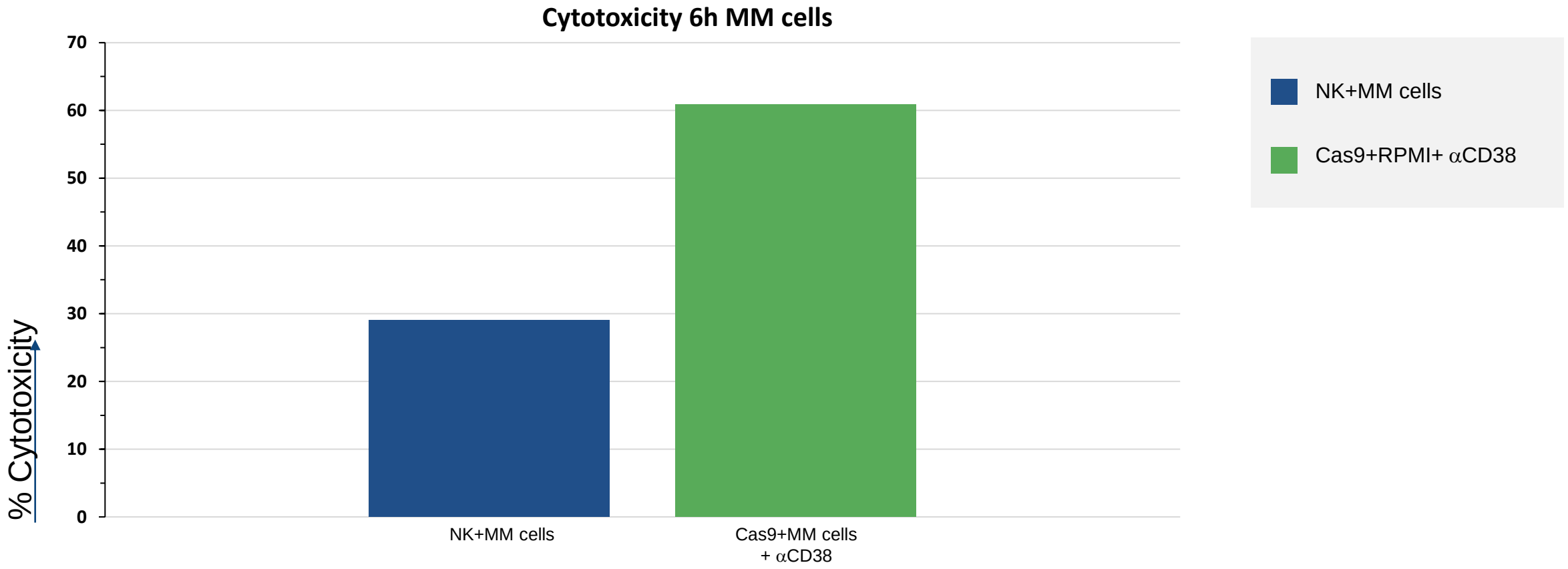
GDA-601: CD38 Targeting by Combined Knockout and CAR

Addition of αCD38 CAR to CD38 KO NKs resulted in better MM (Multiple Myeloma) killing



GDA-601: CD38 KO & αCD38 CAR — Increased Cytotoxicity against MM

Flow cytometry – Cytotoxicity analysis



We are Committed to Cures: Looking Ahead

Making an impact with multiple advanced cell therapy programs that leverage our proprietary NAM cell expansion platform

Omidubicel: Nearing commercialization to address a major unmet need in hematopoietic stem cell transplant

- Potential to be first FDA-approved cell therapy for bone marrow transplantation
- Preparing for BLA submission in 4Q21 based on compelling Phase 3 clinical profile
- Launch readiness activities underway for potential launch mid-22

GDA-201: Harnessing natural killer cells to fight non-Hodgkin lymphoma

- Promising Phase 1 clinical data with an ORR of 74% and CRR of 68%
- Initiating a Phase 1/2 clinical study in NHL in 2H21

GDA-301/401/501/601: Engineered NAM-enabled NK cells

- Proof-of-concept for CAR and CRISPR editing
- Combination strategies show evidence of increased cytotoxicity in preclinical studies
- Potential in blood cancers and solid tumors

Well-positioned to execute goals

- $150.2 million cash position to support capital needs into 2H22*
- Approximately 150 employees

*As of last financial reporting on August 11, 2021

gamida cell

Committed to Cures

August 2021