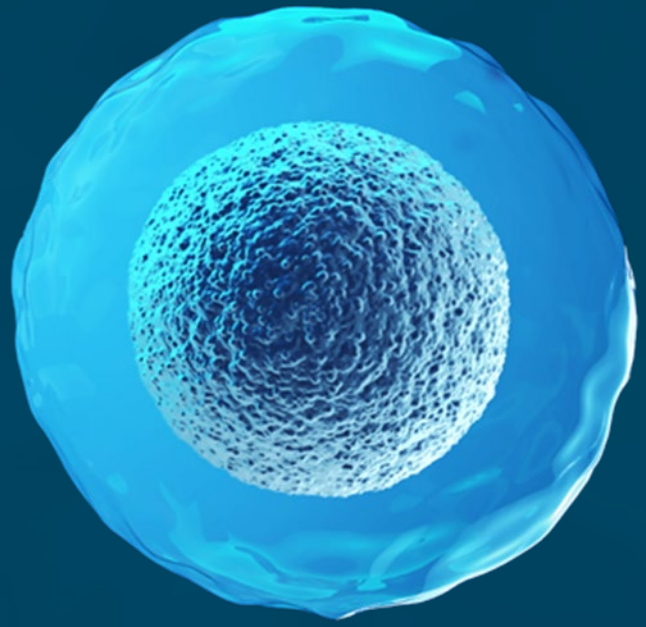


MiNK Therapeutics

Change lives through living medicines

Corporate Overview

December 2023

DISCLAIMER AND FORWARD-LOOKING STATEMENTS

This presentation contains forward-looking statements that are based on management's beliefs and assumptions and on information currently available to management. All statements other than statements of historical facts contained in this presentation are forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning: the therapeutic and curative potential of agenT-797 and iNKT cells, the mechanism of action, potency and safety of agenT-797 and iNKT cells, interim or top-line data, future development plans and timelines (including pre-clinical, clinical, regulatory, manufacturing and commercial),estimated treatment costs, our ability to continue to successfully manufacture iNKT cells (including capacity and scalability), and any other statements containing the words "may," "believes," "expects," "anticipates," "hopes," "intends," "plans," "forecasts," "estimates," "will" and similar expressions are intended to identify forward-looking statements. These forward-looking statements are subject to risks and uncertainties, including the factors described under the Risk Factors section of the most recent Form 10-K, Form 10-Q and the S-1 Registration Statement filed with the SEC. Actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. There are several important factors that could cause MiNK's actual results to differ materially from those indicated by such forward-looking statements, including a deterioration in MiNK's business or prospects; adverse developments in clinical development, including unexpected safety issues observed during a clinical trial; adverse developments in the U.S. or global capital markets, credit markets or economies generally; and changes in regulatory, social, and political conditions. For instance, actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including the uncertainties inherent in the initiation, enrollment and maintenance of patients, and completion of clinical trials, availability and timing of data from ongoing clinical trials, expectations for the timing and steps required in the regulatory review process, including our ability to obtain regulatory clearance to commence clinical trials, expectations for regulatory approvals, the impact of competitive products, our ability to enter into agreements with strategic partners. When evaluating MiNK's business and prospects, careful consideration should be given to these risks and uncertainties. These statements speak only as of the date of this presentation, and MiNK undertakes no obligation to update or revise these statements.

MiNK THERAPEUTICS HIGHLIGHTS

Unique Cell Therapy Platform

Off-the-shelf, potent invariant natural killer T (iNKT) cells administered without lymphodepletion or host rejection

Robust Pipeline of Allogeneic Products

Fully internal capabilities to engineer CARs, TCRs, and bispecific engagers

Clinically Advanced Programs

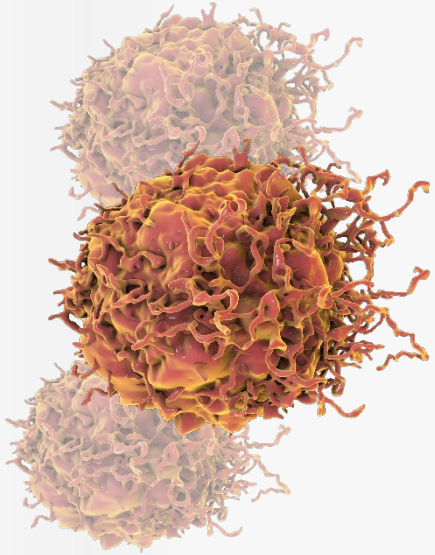
Ongoing clinical trials in oncology & immune-mediated diseases demonstrate clinical benefit with favorable safety

Proprietary Manufacturing

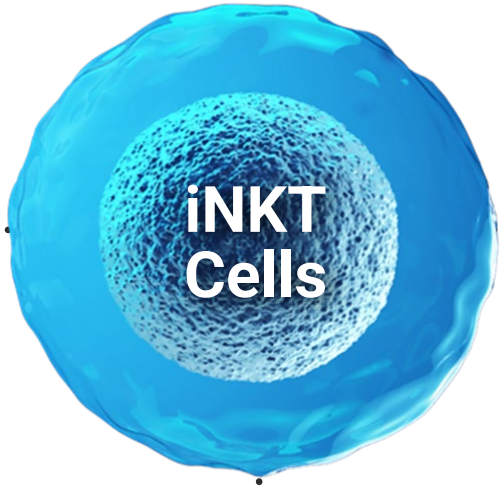
In-house, scalable, closed automated process to produce functional iNKTs at scale

INKT CELLS EMPLOY COMPLEMENTARY MECHANISMS TO TARGET CANCER

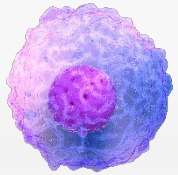
1 Tumor Homing & Direct Killing



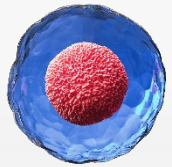
Kill Tumor Cells



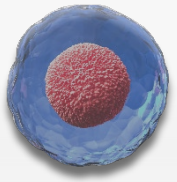
2 Recruit & Activate Host Immunity



Recruit
NK Cells

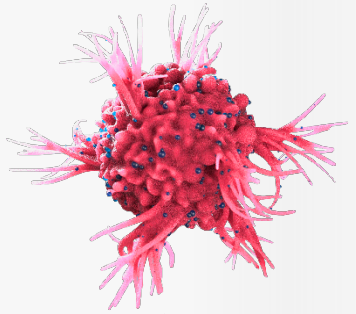


Recruit & Activate
T Cells

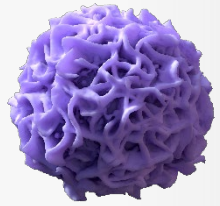


Re-Activate
Exhausted T Cells

3 Condition Tumor Microenvironment



Activate Dendritic cells



Kill Immunosuppressive
M2 macrophages

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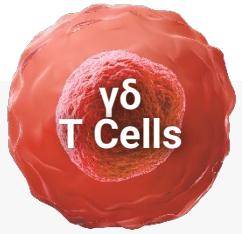
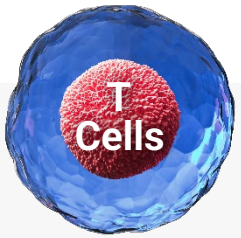
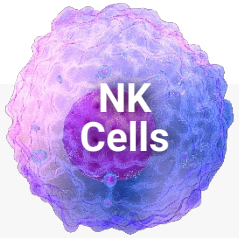
INKT CELLS ARE POWERING THE NEXT GENERATION OF CELL THERAPIES

OVERCOMES PRACTICAL AND MECHANISTIC CHALLENGES OF OTHER CELL TYPES

				
Innate AND adaptive immune modulation	✓	✓	✗	✗
Tumor homing and persistence	✓	✓	✗	✗
No Lymphodepletion	✓	?	✗	?
Naturally suppresses GvHD	✓	✗	✗	✗
No exhaustion	✓	✗	✗	✗
Potential to multi-dose without lymphodepletion	✓	✗	✗	✗

MiNK Therapeutics

UNIQUE BENEFITS OF INKTS DEMONSTRATED IN THE CLINIC

EASILY ADMINISTERED, SAFE AND DURABLE RESPONSES

No lymphodepletion prior to administration

Unprecedented persistence of up to 6 months **independent of HLA matching**

Long-term disease stabilization (6M+) in advanced solid tumors refractory to prior standard of care

First immune cell therapy to improve survival in patients with respiratory distress syndrome (>70% vs 10-39% control)

Excellent safety profile No GvHD, CRS or ICANS

Source: Purbhoo MA et al, SITC 2023 Poster 735; Purbhoo MA et al, SITC 2022, Poster 649; Hammond TC et al, ATS 2023 Poster P1172

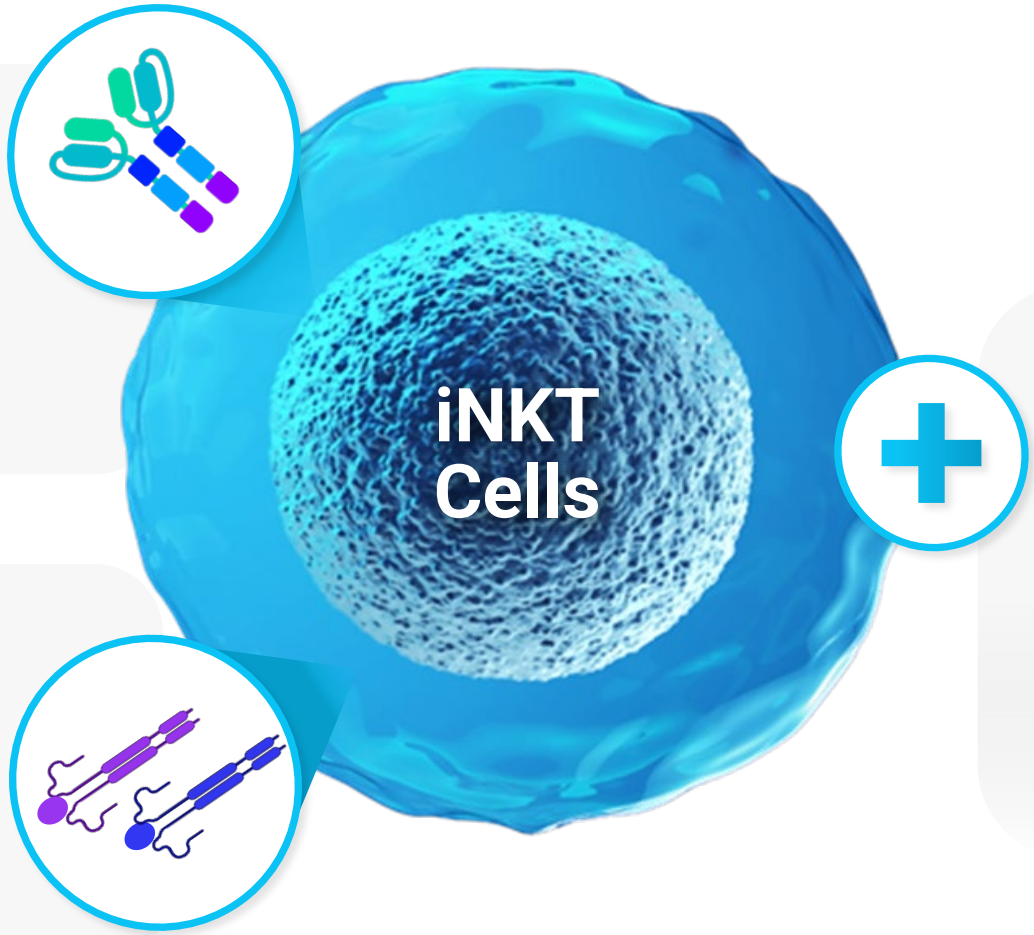
INKT CELLS CAN BE ARMORED TO ENHANCE TUMOR KILLING

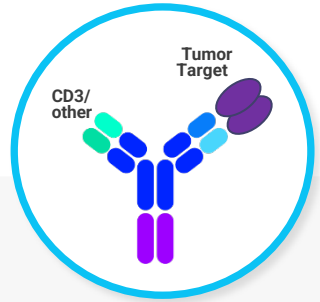
CAR/TCR Engineering

- Proprietary discovery platforms without additional gene edits
- Targeted tumor cell killing

Cytokine Engineering

- In vivo expansion
- Improved persistence





Bispecific Engagers

Enhanced activity via synergies with

- CD3 based engagers
- Proprietary iNKT engagers

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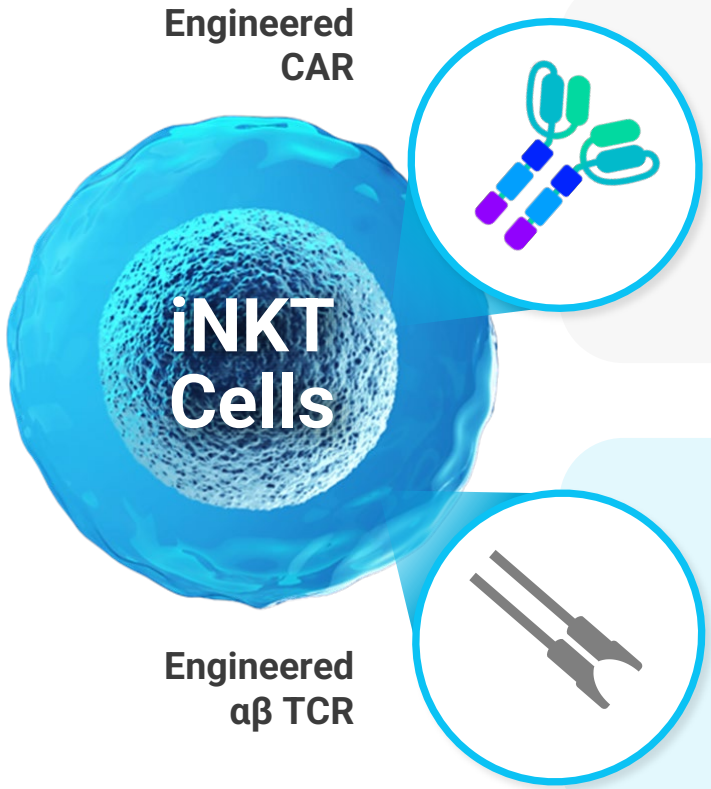
INNOVATIVE PIPELINE WITH NATIVE AND ENGINEERED INKTS

Product	Target	Indication and Approach	Preclinical	IND-enabling	Phase 1/2	Latest & Upcoming Milestones
agenT-797	Native iNKT	Solid tumors ± anti-PD1				• Updated data at SITC 2023
		Gastric cancer + SOC ± BOT/BAL[1]				• Trial initiation 2023
		Acute Respiratory Distress Syndrome (ARDS)				• Updated data at ATS 2023
MiNK-215	FAP CAR	Solid tumors				• Potential IND filing 2024 • Updated data at ASGCT 2023
MiNK-413	BCMA CAR	Multiple myeloma				• IND ready 2024
MiNK-PRAME-TCR	PRAME TCR	Solid tumors				• Candidate nomination 2024
MiNK-Engagers	Undisclosed	Solid tumors				• Candidate nomination 2024

[1]Agenus Inc, therapeutic candidates botensilimab (BOT, anti-CTLA-4) and balstilimab (BAL, anti-PD-1)
;

MINK THERAPEUTICS HAS ROBUST DISCOVERY PLATFORMS FOR CAR AND TCR



CARDIS enables high-throughput DISCOVERY of functional cars

- CAR Expressed into mammalian display library
- Identify strong binders and activators
- Eliminate false binders and non-functional CARs

Trx platform enables efficient TCR discovery & engineering

- TCR expressed in mammalian display cell line
- High throughput functional and specificity testing
- In vitro characterization for candidate selection

MiNK Therapeutics

RAPID CLINICAL DEVELOPMENT THROUGH PARTNERSHIPS

HIGH IMPACT COLLABORATIONS AND NON-DILUTIVE FINANCING

UCLA

PRINCIPAL INVESTIGATOR:

Dr. Terese C. Hammond
Pulmonology and Critical Care

Phase 2: agenT-797 in viral ARDS

ImmunoScape

Discovery: novel TCR targets

Memorial Sloan Kettering Cancer Center

PRINCIPAL INVESTIGATOR:

Dr. Yelena Janjigian
Chief Gastrointestinal Oncology

Phase 2: agenT-797 + chemotherapy ± PD-1/CTLA-4 in Gastric Cancer

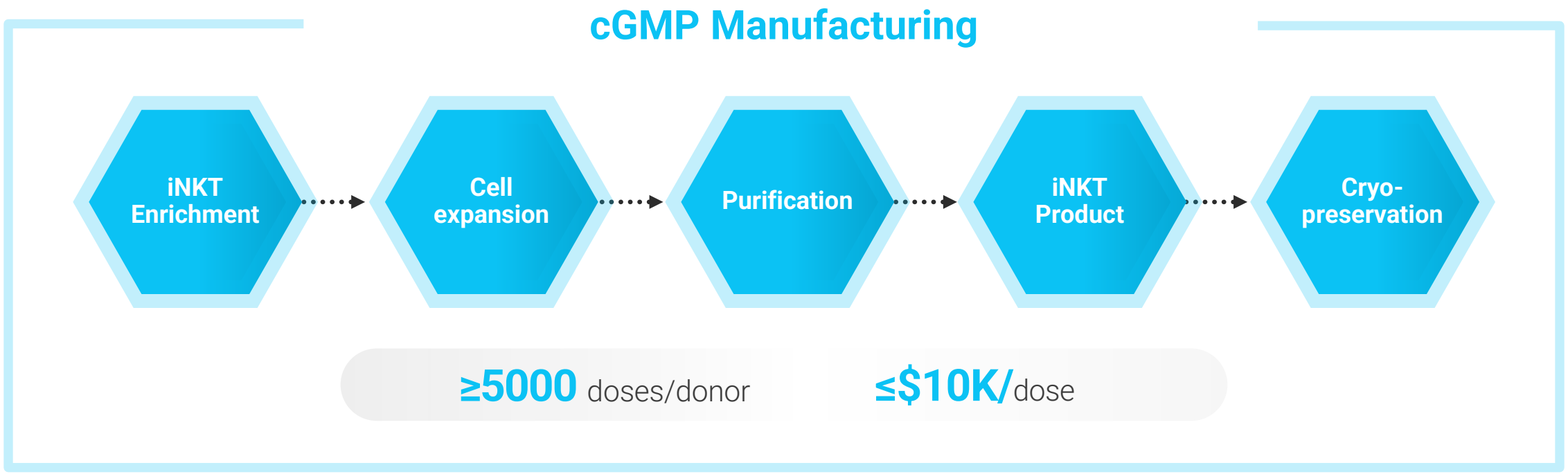
agenus

Clinical and Research: agenT-797 combination with immune checkpoint inhibitors

ARDS: Acute Respiratory Distress Syndrome

MINK MANUFACTURING PROCESS TO ACHIEVE ≤$10K PER DOSE

OFF-THE-SHELF, COST-EFFECTIVE AND SCALABLE TO >5000 DOSES



- In-house manufacturing
- Automatic and fully closed process
- Commercial ready

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agenT-797

Clinical data in solid tumors

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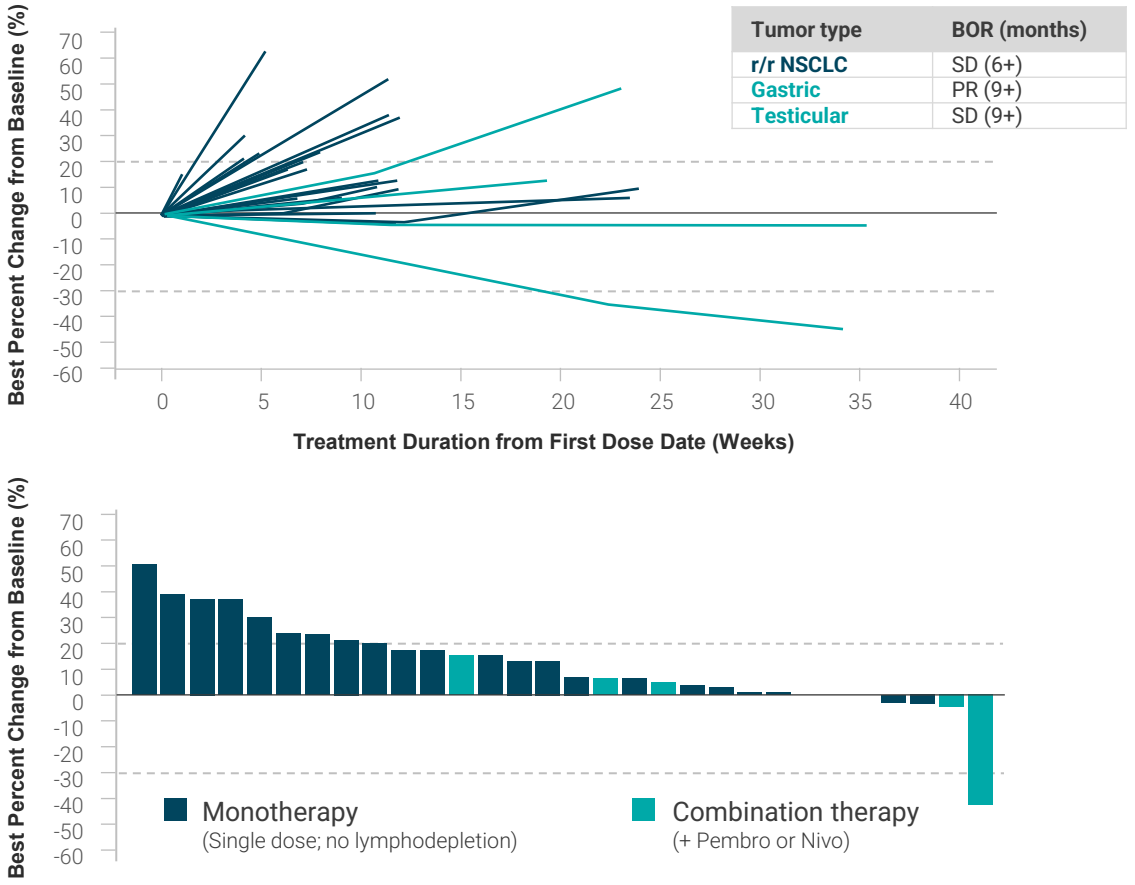
AGENT-797 SHOWS RESPONSES AND DURABLE STABILIZATION

SINGLE DOSE WITHOUT LYMPHODEPLETION IN HEAVILY PRE-TREATED PATIENTS

Target Lesion Change



3L+ Solid Tumors	Monotherapy (n=28)	Combination (n=6)
BOR , n (%)		
Partial Response	0 (0%)	1 (17%)
Stable Disease	7 (25%)	3 (50%)
DCR [CR + PR + SD], n (%)	7 (25%)	4 (67%)
Median PFS (months, 95% CI)	2.3 (1.6, 3.0)	5.5 (1.8, 10.3)
Median follow-up (months)	6.0	10.3

Source: Purbhoo MA et al, SITC 2023 Poster 735
BOR: Best Overall Response

MiNK Therapeutics

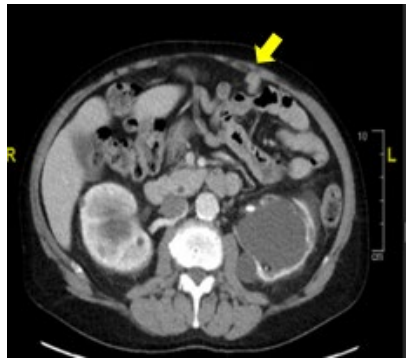
PARTIAL RESPONSE IN PD-1 REFRACTORY GASTRIC CANCER

42% TARGET LESION REDUCTION AT 9 MONTHS; RESPONSE ONGOING

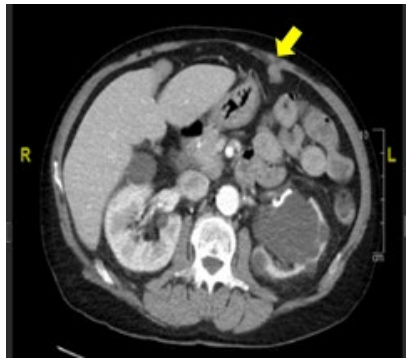
Gastric Cancer Patient

Patient Characteristics	• 75-year-old male • Failed prior PD-1 therapies	
Prior Therapies	• Pembrolizumab • FOLFOX + nivolumab + oxaliplatin	PD SD
Treatment	• Single dose of agenT-797 + nivolumab (200mg) • DL1: 4.3 x 10^6 cells/kg	
Response	• 33% target reduction at 6 months • 42% target reduction at 9 months • PFS: 10M+	

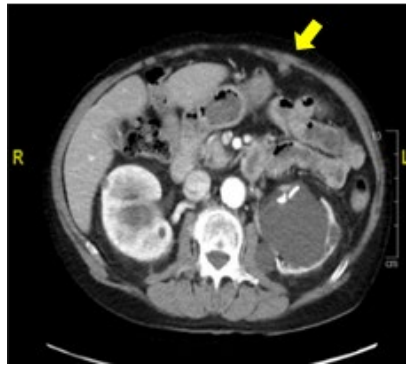
Baseline



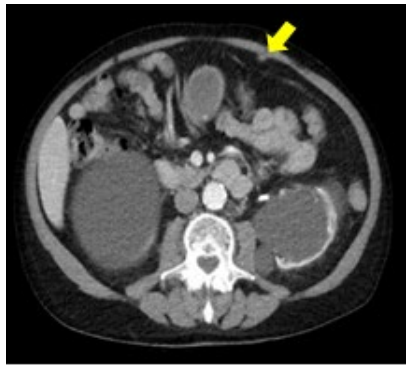
Month 3



Month 6



Month 9



Source: Carniero BA et al, AACR 2023 Poster CT275

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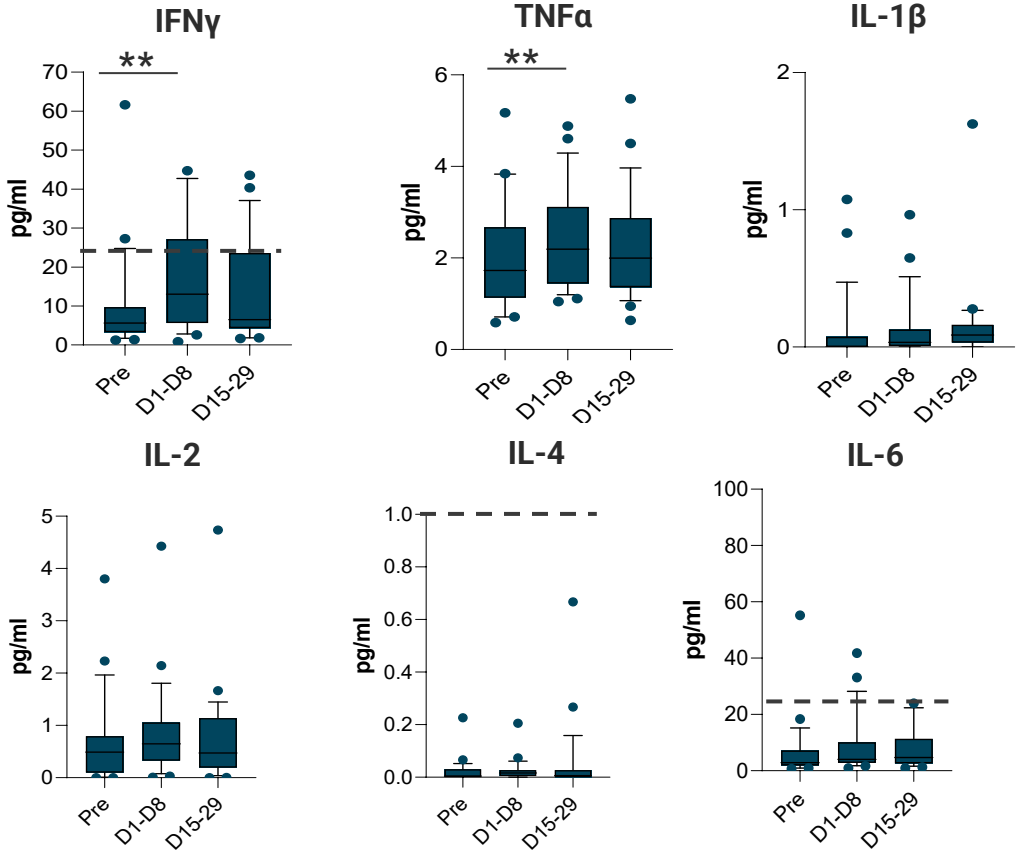
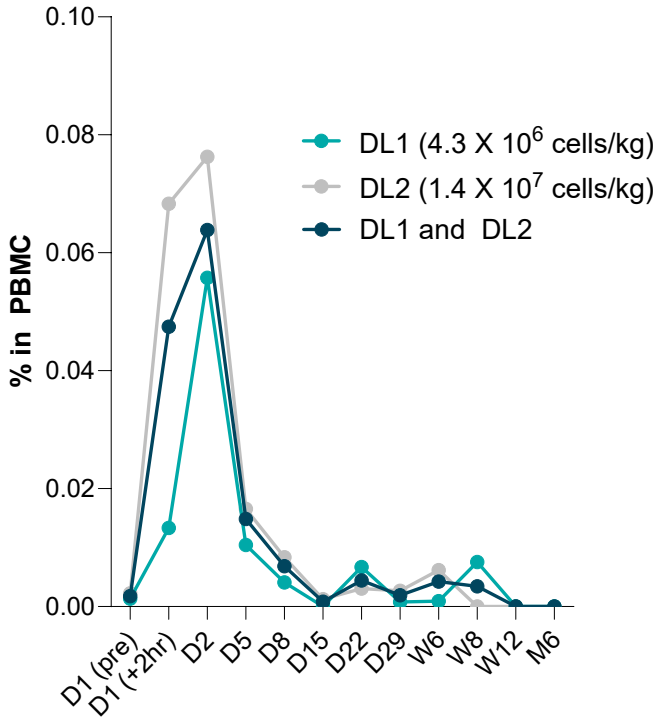
AGENT-797: PROLONGED PERIPHERAL PERSISTENCE AND TH1 CYTOKINE PROFILE

ENHANCED IFNγ AND TNFα AND UP TO 6 MONTHS PERSISTENCE

Enhanced Th1 Cytokine Profile



Long Peripheral Persistence



Source: Carniero BA et al, AACR 2023 Poster CT275; Purbhoo MA et al, SITC 2023 Poster 735
Dashed line indicates upper limit of cytokines in healthy people

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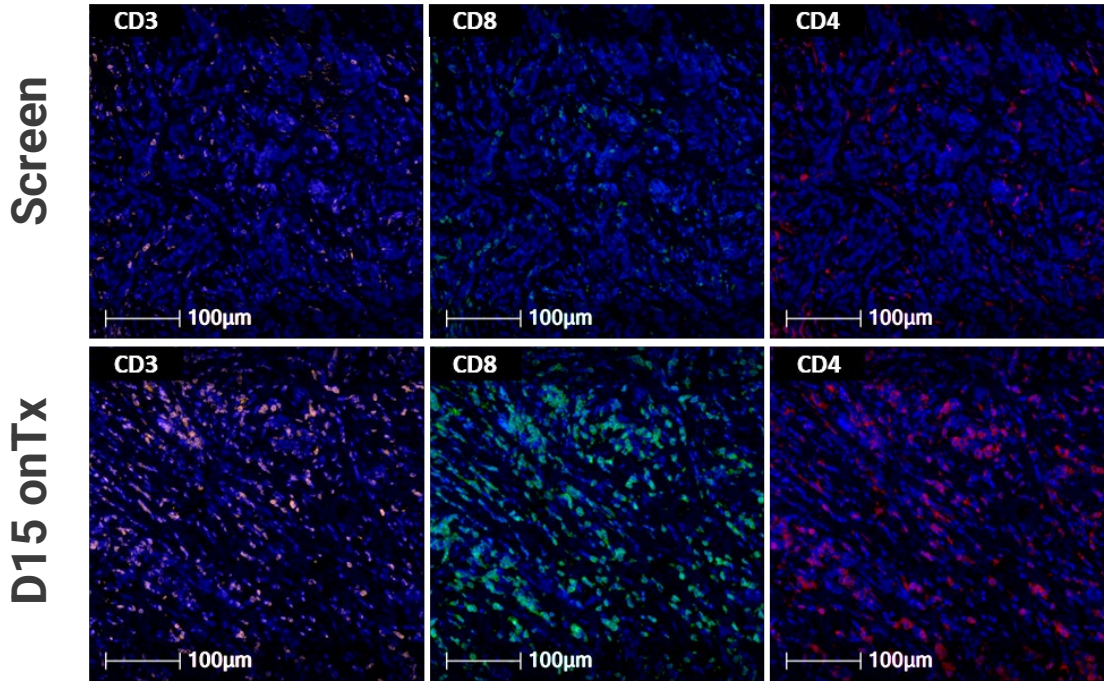
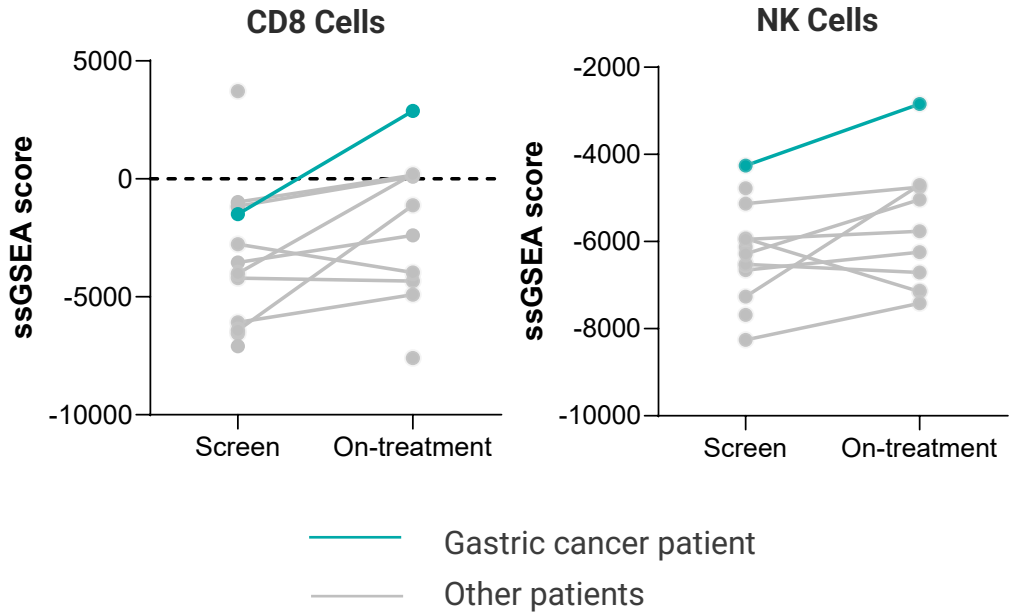
AGENT-797: PROMOTES IMMUNE CELL INFILTRATION IN TUMOR

INCREASED CD3, CD4, CD8 AND NK CELLS

Increased T Cell Infiltration (mIF)



Increased CD8 and NK cell Infiltration (RNA-Seq)



Source: Purbhoo MA et al, SITC 2023 Poster 735
ssGSEA: single sample gene set enrichment analysis from RNAseq

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AGENT-797 IS WELL-TOLERATED

NO DLTS AND FEW RELATED ADVERSE EVENTS

	Total	agenT-797 MonoTx		agenT-797 + anti-PD-1	
Dose level	N = 34	**DL1: 4.3 x 10^6 cells/kg** N = 8	**DL2: 1.4 x 10^7 cells/kg** N = 20	**DL1: 4.3 x 10^6 cells/kg** N = 3	**DL2: 1.4 x 10^7 cells/kg** N = 3
AE, n (%)	**32 (94)**	**8 (100)**	**18 (90)**	**3 (100)**	**3 (100)**
Any AE of grade ≥ 3	19 (56)	7 (88)	11 (55)	0	1 (33)
	3 (9)	**0**	**2 (10)**	**0**	**1 (33)**
	1 (3)	0	0	0	1 (33)
TRAE, n (%)	**9 (27)**	**3 (38)**	**2 (10)**	**2 (67)**	**2 (67)**
Any TRAE of grade ≥ 3	1 (3)	1 (13)	0	0	0
Any TRAE leading to discontinuation	0	0	0	0	0
Any TRAE leading to dose interruption	0	0	0	0	0
Any TRAE leading to death	0	0	0	0	0
TRAE by System Organ Class, n (%)					
General (Fatigue, Chills)	5 (15)	1 (13)	1 (5)	1 (33)	2 (67)
Skin (Pruritus, Odor)	2 (6)	1 (13)	0	1 (33)	0
Immune system (CRS)	1 (3)	0	1 (5)	0	0
Nervous system (Dysgeusia)	1 (3)	0	0	0	1 (33)
Psychiatric (Insomnia)	1 (3)	0	0	1 (33)	0
Respiratory (Dyspnoea)	1 (3)	0	1 (5)	0	0
Blood and lymphatic system (Anemia)	1 (3)	1 (13)	0	0	0

Source: Carniero BA et al, AACR 2023 Poster CT275

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agenT-797

Clinical data in immune dysfunction

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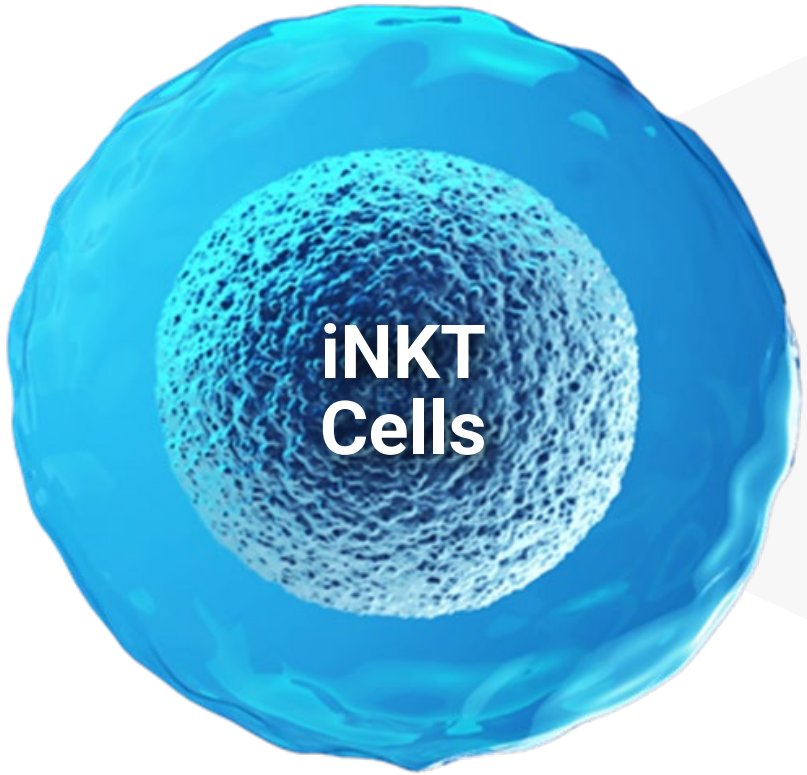
INKT CELLS PLAY A PROTECTIVE ROLE IN INFECTION AND INFLAMMATION



Infections

- Bacterial and viral infections
- Promotes CD8+ cytotoxic response
- Protects against tissue damage

Autoimmune Diseases

- Lupus, Multiple Sclerosis, Arthritis, Diabetes
- Induction of suppressive cells
- Modulating cytokine and Th profile

Pulmonary Fibrosis & Lung Dysfunction

- Immune or non-immune -mediated
- Suppresses pro-fibrotic factors such as TGFB
- Modulates macrophage polarization

Source: Paget C et al, Mucosal Immunol. 2013; Jeong D et al, Exp & Mol Med. 2023; Kaer LV & Wu L, Front Immunol. 2018

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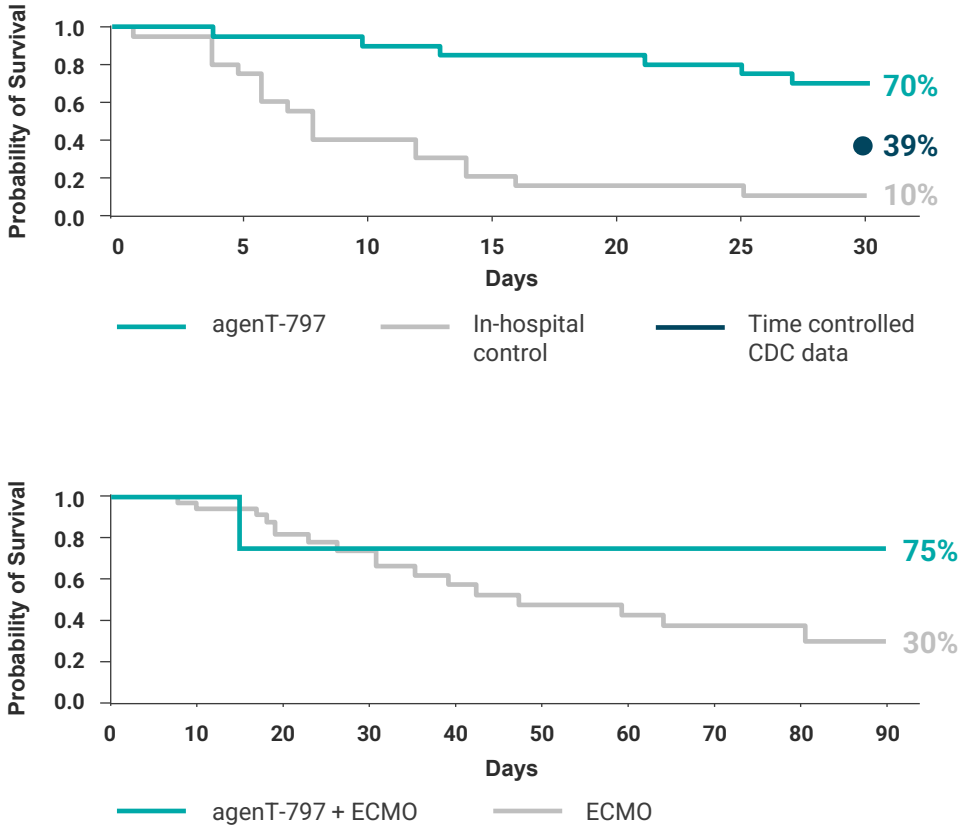
AGENT-797 IMPROVES SURVIVAL AND LUNG FUNCTION IN SEVERE CARDS

AGENT-797 TREATMENT: 30-DAY SURVIVAL RATE OF 70% (VS 10% SITE-BASED CONTROL)

Increased Survival vs Case control



Reduced Incidence of Secondary Infections, including Pneumonia

	Dose Level 1 (n=3)	Dose Level 2 (n=4)	Dose Level 3 (n=13)
	n (%)	n (%)	n (%)
Pneumonia	**2 (67)**	**3 (75)**	**2 (15)**
Bacteraemia	2 (67)	0	1 (8)
Urinary tract infection	0	3 (75)	1 (8)
Fungaemia	0	1 (25)	1 (8)
Cytomegalovirus viraemia	0	0	1 (8)
Lung abscess	1 (33)	0	0
Pneumonia klebsiella	0	1 (25)	0
Sepsis	1 (33)	0	0
Septic shock	0	0	1 (8)
Upper respiratory tract infection	1 (33)	0	0

Source: Purbhoo MA et al, SITC 2022, Poster 649

CARDS: COVID-19 Associated Acute Respiratory Distress Syndrome

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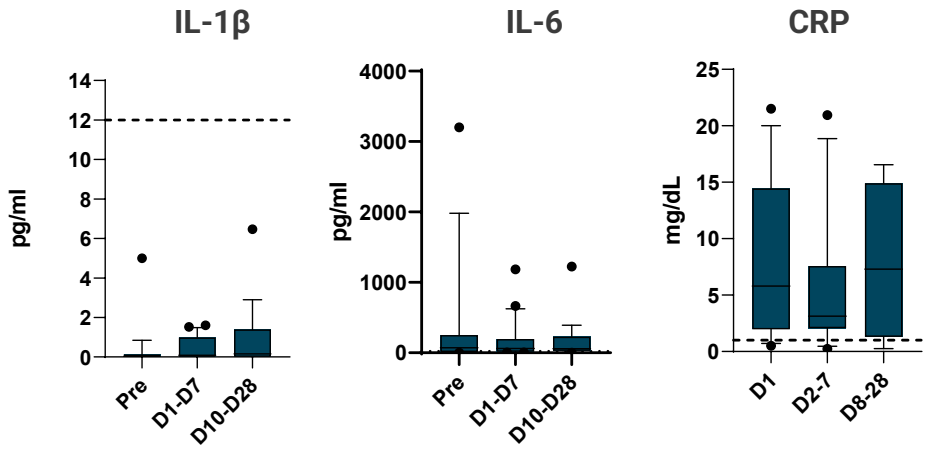
AGENT-797 IS WELL TOLERATED IN SEVERE CARDS PATIENTS

No Significant Adverse Events

	agenT-797 ± ECMO (n=20)	agenT-797 + ECMO (n=4)
	n (%)	n (%)
AE	**20 (100)**	**4 (100)**
Any AE of grade ≥ 3	19 (95)	4 (100)
TRAE	**5 (25)**	**0 (0)**
Any TRAE of grade ≥ 3	1 (5)	0
Any TRAE leading to discontinuation	0	0
Any TRAE leading to dose interruption	0	0
Any TRAE leading to death	0	0

No Cytokine Release Syndrome



Source: Hammond TC et al, ATS 2023 Poster P1172 ;
CARDS: Covid-related Acute Respiratory Distress Syndrome; Dashed line indicates upper range limit in healthy people

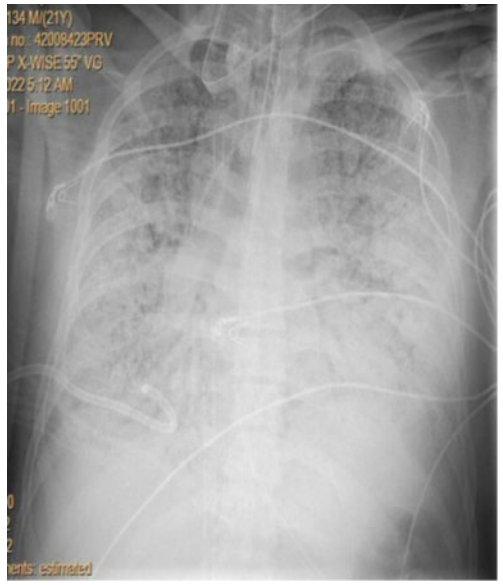
SIGNIFICANT IMPROVEMENT NOTED IN CARBAPENEM-RESISTANT PNEUMONIA

PATIENT CLEARED LUNG INFECTION AND STOPPED VV-ECMO 13 DAYS POST AGENT-797 INFUSION

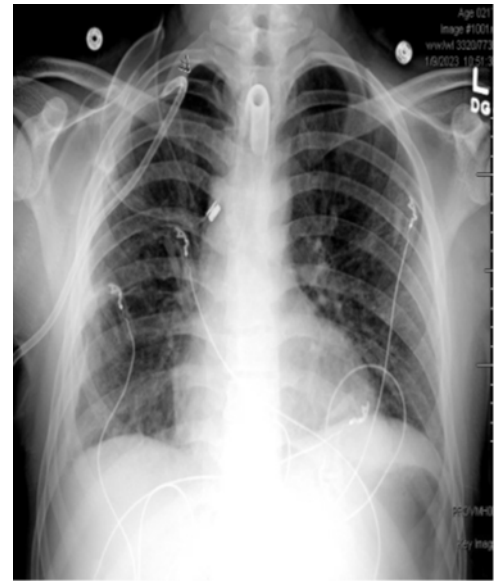
Carbapenem-resistant Severe ARDS Patient

Patient Characteristics	• 21-year-old male • Severe ARDS • Carbapenem resistant Pseudomonal Pneumonia on VV-ECMO
Treatment	• Single dose of agenT-797 • DL2: 1 x 10^9 cells
Response	• Cleared Infection • Stopped ECMO 13 days post-infusion

Pre-infusion



Post agenT-797 infusion



Source: Hammond TC et al, Manuscript under review

VV-ECMO: Veno-Venous Extracorporeal Membrane Oxygenation; ARDS: Acute Respiratory Distress Syndrome

MiNK Therapeutics

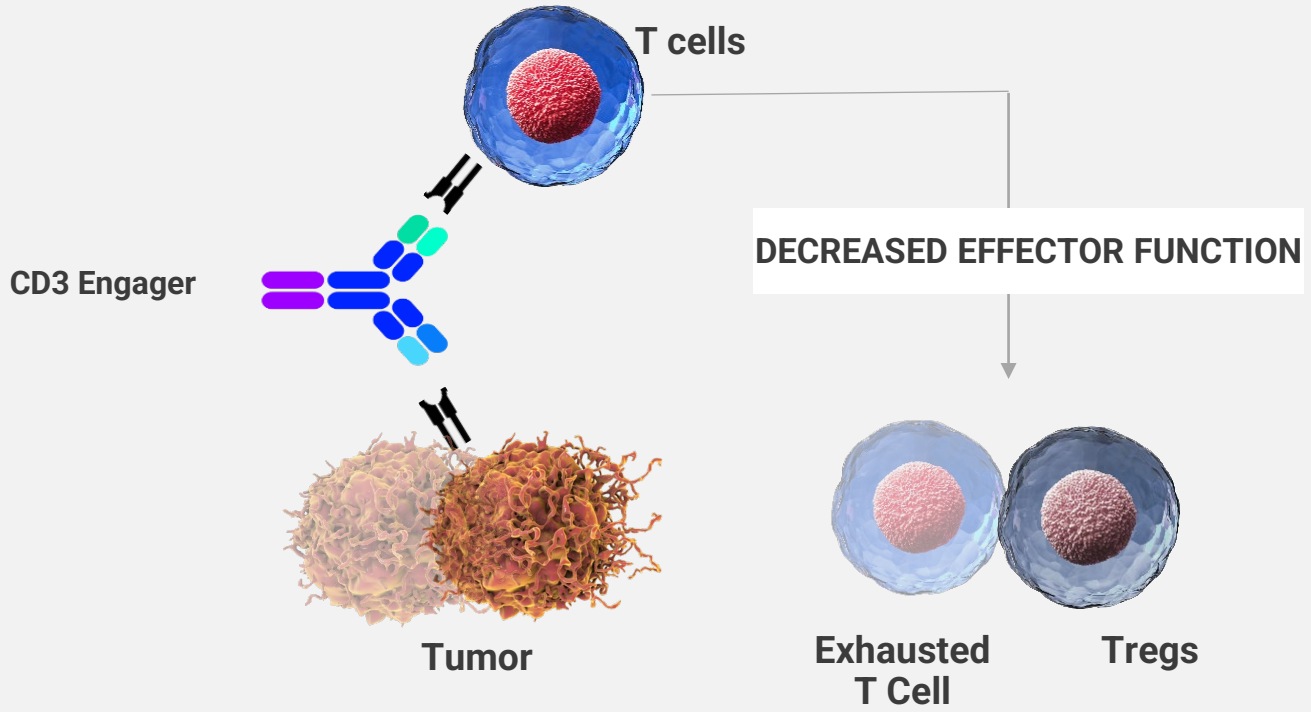
agenT-797

Preclinical data on synergy with CD3 engagers

MiNK Therapeutics

LIMITATIONS OF CURRENT T CELL ENGAGERS

Direct tumor cytotoxicity



- Recruitment of Tregs and exhausted T cells
- Immunosuppressive tumor microenvironment
- Frequent dosing
- Immune-related adverse events: CRS

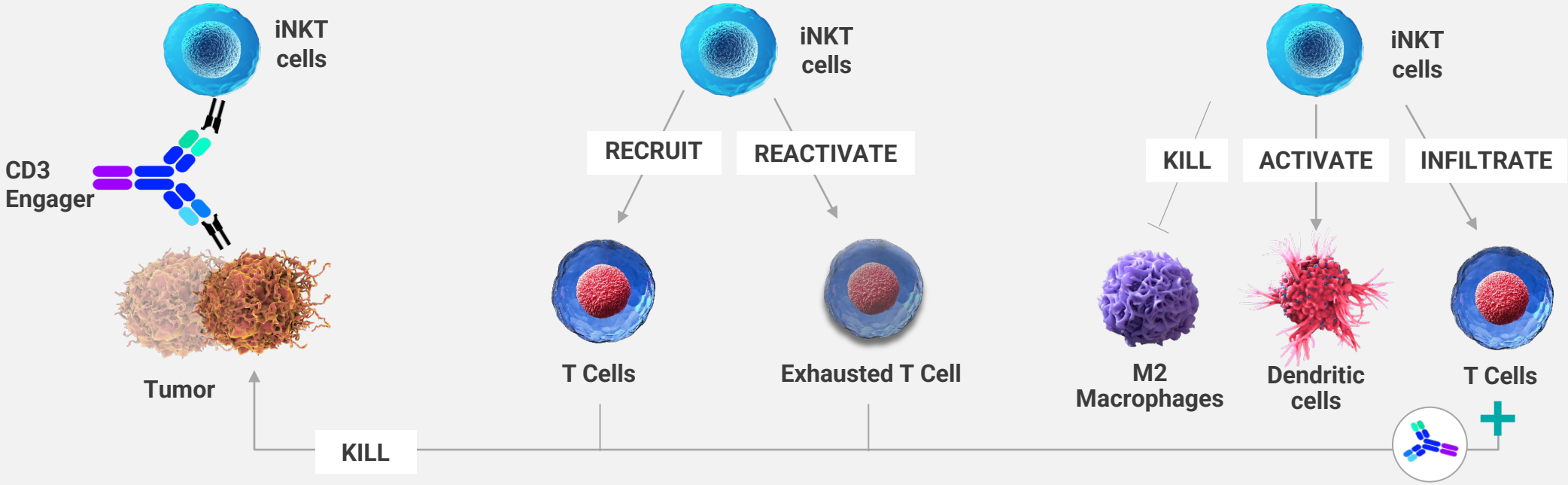
MiNK Therapeutics

INKTS POTENTIATE A SUSTAINED IMMUNE RESPONSE

Direct tumor cytotoxicity

iNKTs reactivate exhausted T cells

Modulate suppressive TME



No lymphodepletion

No HLA matching

Tolerable safety profile: No CRS

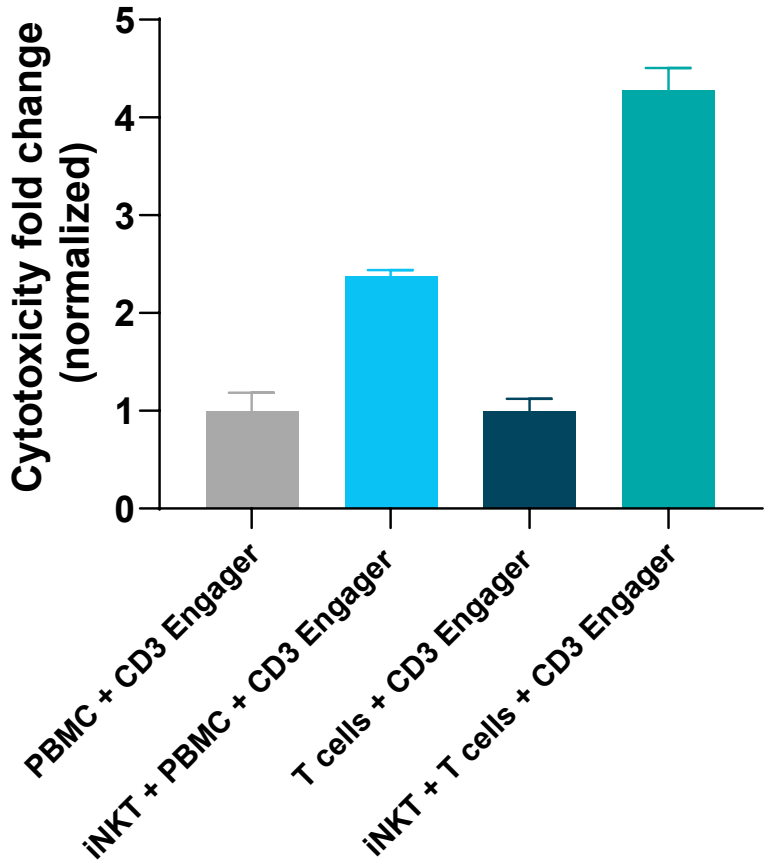
Reduced dosing frequency

Source: Purbhoo MA et al, SITC 2023 Poster 735, Carniero BA et al, AACR 2023 Poster CT275, Pokharel et al, SITC 2022, Poster 372

MiNK Therapeutics

INKTS AND CD3 ENGAGER SHOW 2X TUMOR KILLING

INKT CELLS WILL SYNERGIZE WITH PATIENTS' ENDOGENOUS IMMUNE CELLS



- PBMCs and T cells mimic host immune system
- Cytotoxicity normalized to CD3 engager activity with PBMCs or T cells aligning with current therapy
- CD3 engager + allogeneic iNKT cells (as low as 0.2 X 10^5) boost cytotoxicity >2 fold

Source: Unpublished data, MiNK R&D
Data representative of 1 donor (T/PBMC:Tumor = 4:1; iNKT: T/PBMC = 1:5; 24h co-culture with CD3 X MUC16 Engager)

MiNK Therapeutics

MiNK-215

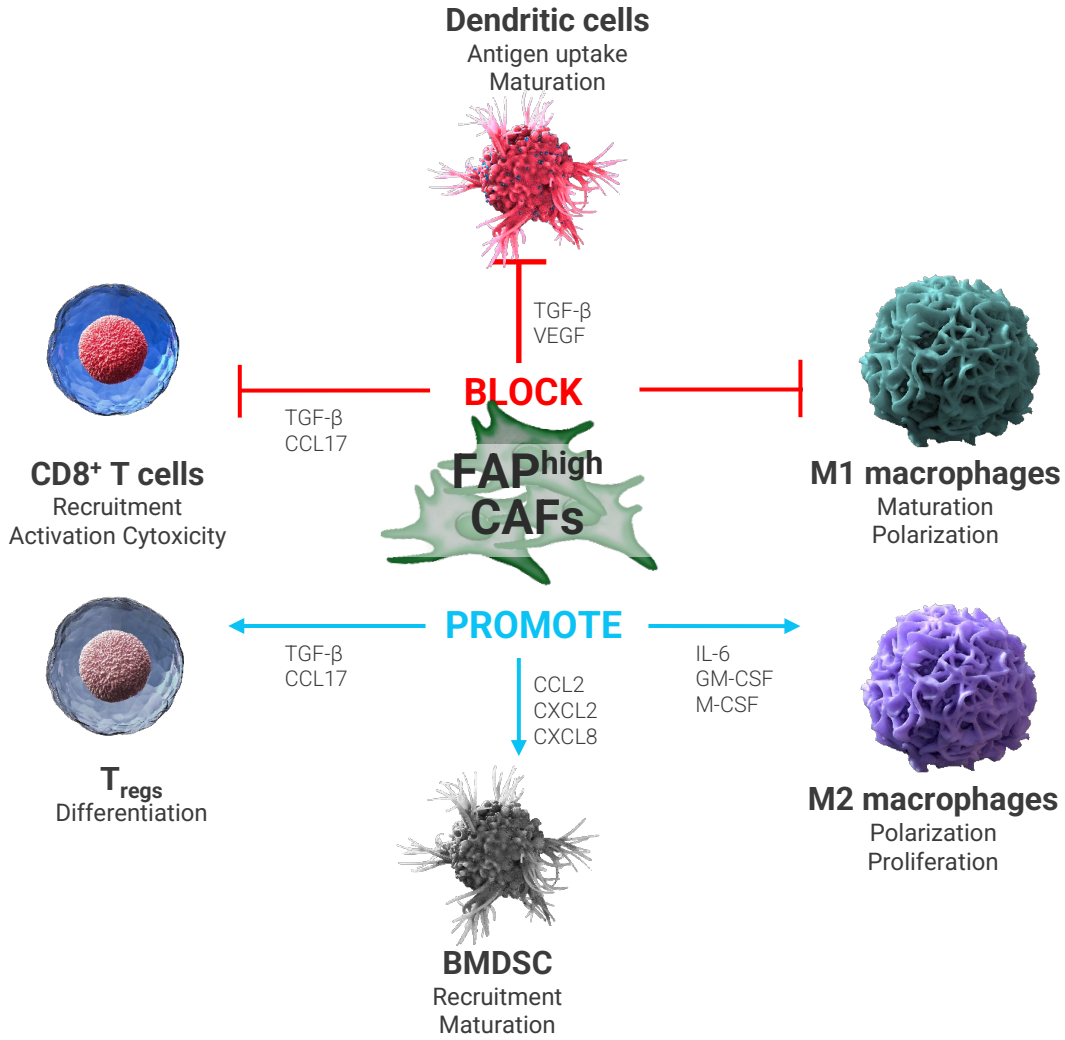
Preclinical data from Engineered FAP-CAR-iNKT cells

MiNK Therapeutics

TARGETING TUMOR-PROMOTING STROMAL CELLS IN SOLID TUMORS

FAP^{HIGH} CAFS OCCUR IN >90% OF EPITHELIAL-DERIVED TUMORS

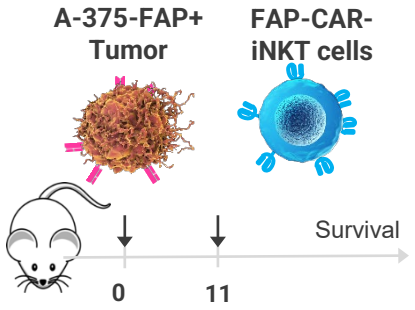
- FAP^{high} CAFs are highly immune-suppressive and tumor-promoting in the TME
- FAP^{high} CAFs secrete a variety of cytokines to modulate immune activity
- Targeting FAP^{high} CAFs may result in tumor cell death in highly stromagenic cancers without IO success



MINK FAP-CAR-INKT PROMOTES SURVIVAL IN FAP+ TUMOR-BEARING MICE

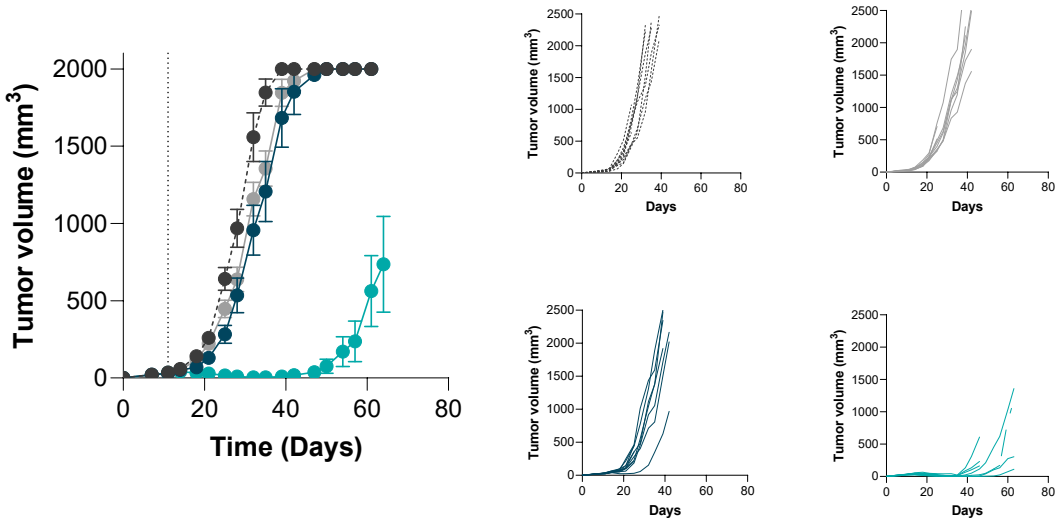
SUPERIOR ANTI-TUMOR ACTIVITY TO CLINICAL REFERENCE CAR (SIBROTUZUMAB)

A375 Melanoma Model

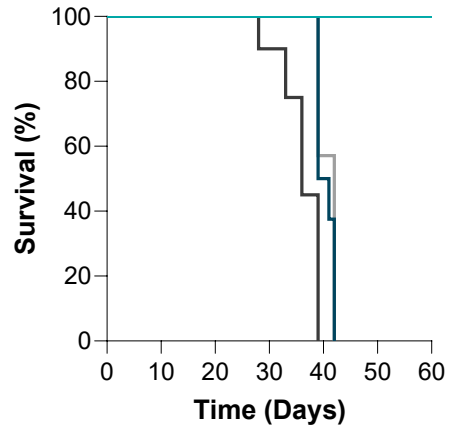


- Day 0: FAP+ A-375 tumor cells injected subcutaneously into NOG-tg (IL15) mice
- Day 11: FAP-CAR- iNKT cells administered

Improved Tumor Control



Superior Survival



Source: Michelet X et al, SITC 2022, Poster 358
Subcutaneous FAP+ A-375 melanoma model

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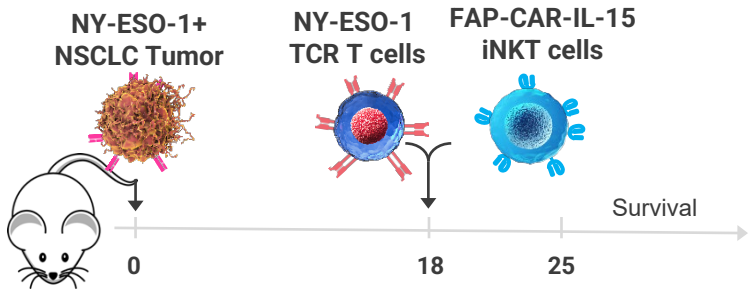
NSCLC MOUSE ORTHOTOPIC MODEL RECAPITULATES TUMOR STROMA

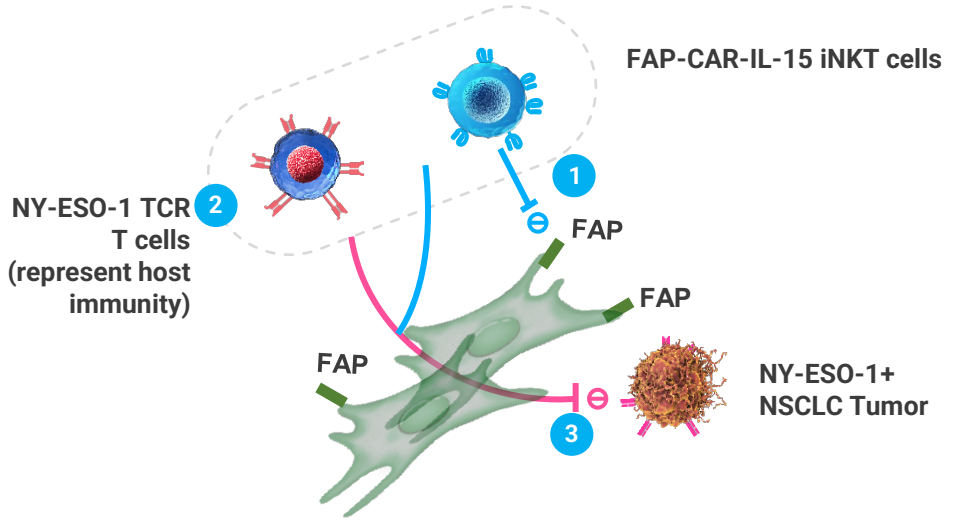
IN VIVO ASSESSMENT OF TARGETING FAP+ CAFS

Orthotopic NSCLC Model



- Day 0: A-549 tumor cells expressing NY-ESO-1 antigen injected into immunodeficient mice
- Day 18: FAP-CAR-IL-15 iNKT cells and/or NY-ESO-1 TCR T cells administered
- NY-ESO-1 TCR T cells mimic host T cells

FAP-CAR-IL-15 iNKT Mechanism of Action



1. FAP-CAR-IL-15 iNKT cells directly target and kill FAP-expressing CAFs
2. FAP-CAR-IL-15 iNKT cells recruit T cells to the tumor microenvironment
3. T cells infiltrate the tumor tissue and directly kill tumor cells

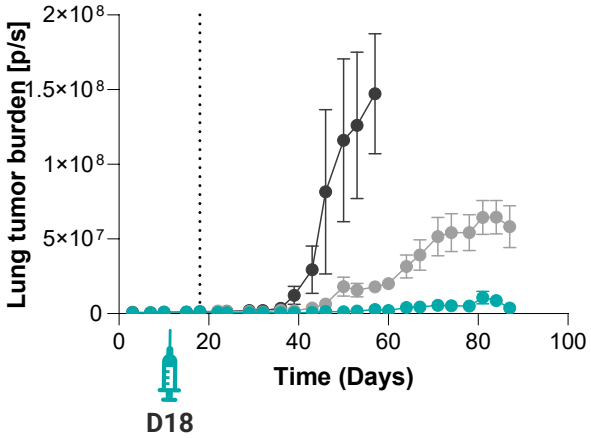
Source: Boi S et al, ASGCT 2023, Poster 1488
Orthotopic lung cancer model with A-549 expressing NY-ESO-1 antigen in immunodeficient mice

MiNK Therapeutics

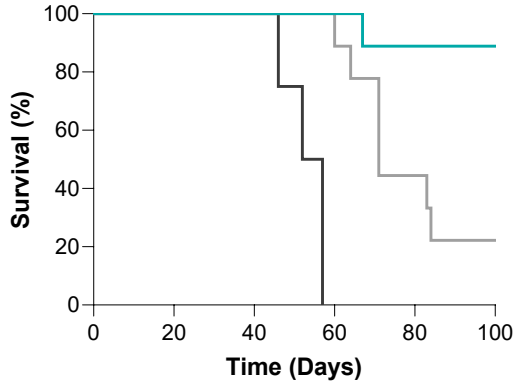
MINK-215 HALTS TUMOR GROWTH AND IMPROVES SURVIVAL IN MICE

SYNERGIZES WITH HOST T CELLS FOR ENHANCED ACTIVITY

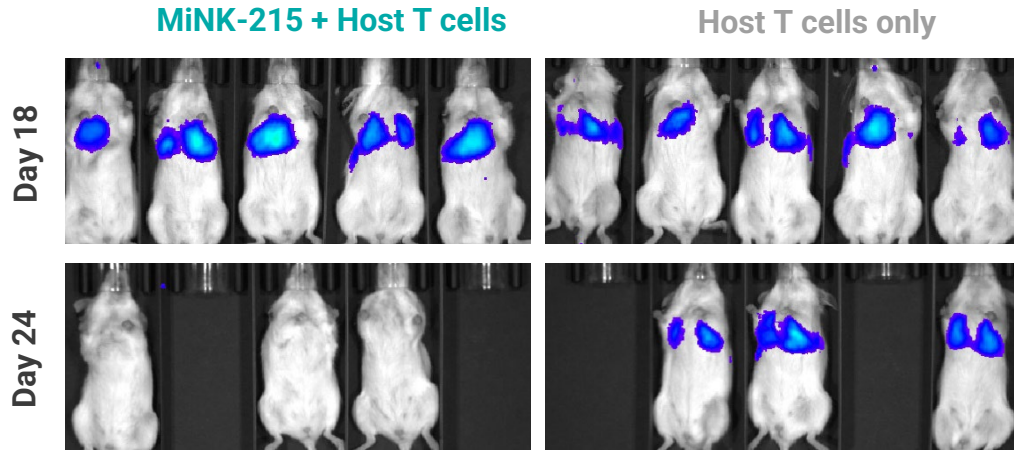
Reduced Tumor Burden



Improved Survival



Superior Tumor Clearance



Untreated Host T cells only MiNK-215 + Host T cells

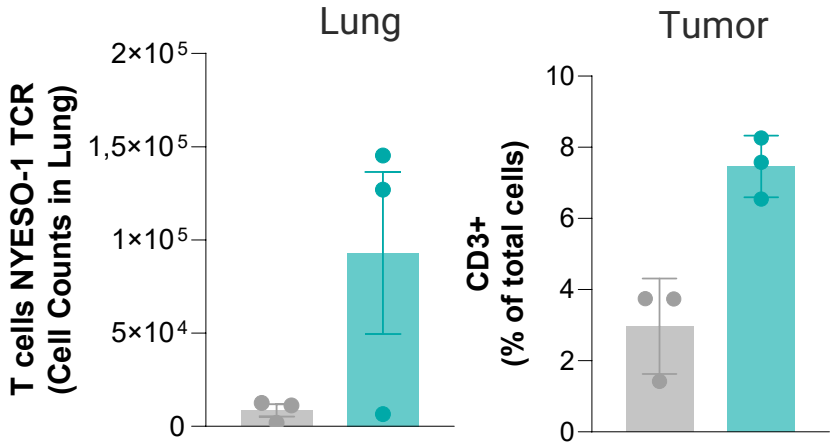
Source: Boi S et al, ASGCT 2023, Poster 1488
Orthotopic lung cancer model with A-549 expressing NY-ESO-1 antigen in immunodeficient mice

MiNK Therapeutics

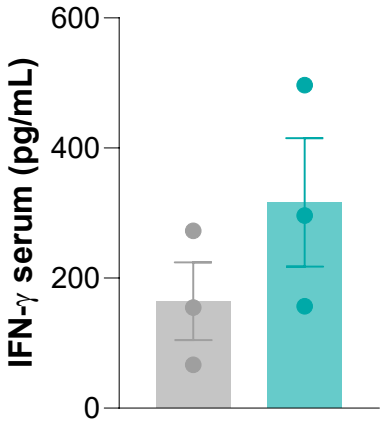
MINK-215 PROMOTES T CELL INFILTRATION & CYTOKINE SECRETION

DECREASES FAP EXPRESSION IN TUMOR STROMA

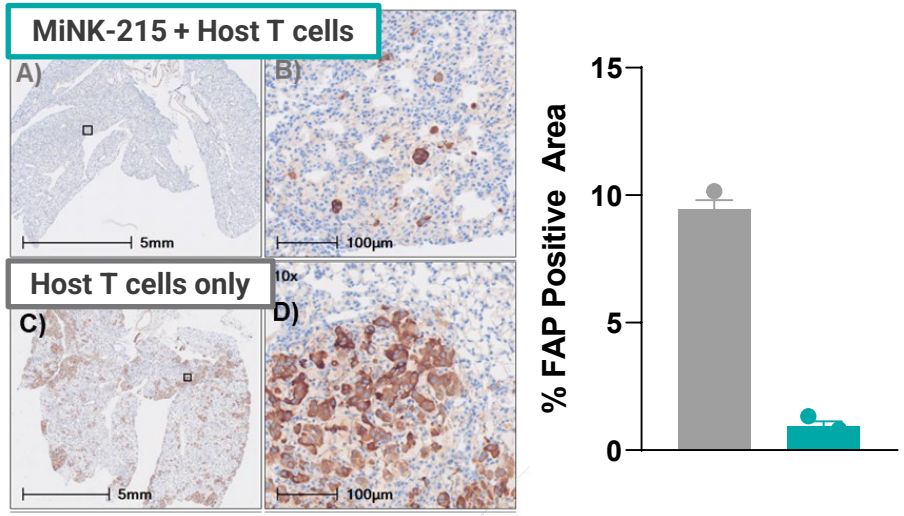
Increased T Cell Infiltration



Enhanced Cytokine Secretion



Reduction in FAP+ CAFs



Host T cells only MiNK-215 + Host T cells

Source: Boi S et al, ASGCT 2023, Poster 1488, Boi S et al, CICON 2023, Poster
Orthotopic lung cancer model with A-549 expressing NY-ESO-1 antigen in immunodeficient mice

MiNK Therapeutics

MiNK-413

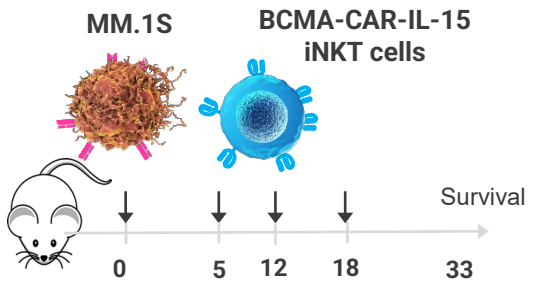
Preclinical data from Engineered BCMA-CAR-iNKT cells

MiNK Therapeutics

MINK-413 DELAYED TUMOR ENGRAFTMENT IN XENOGRAFT MICE

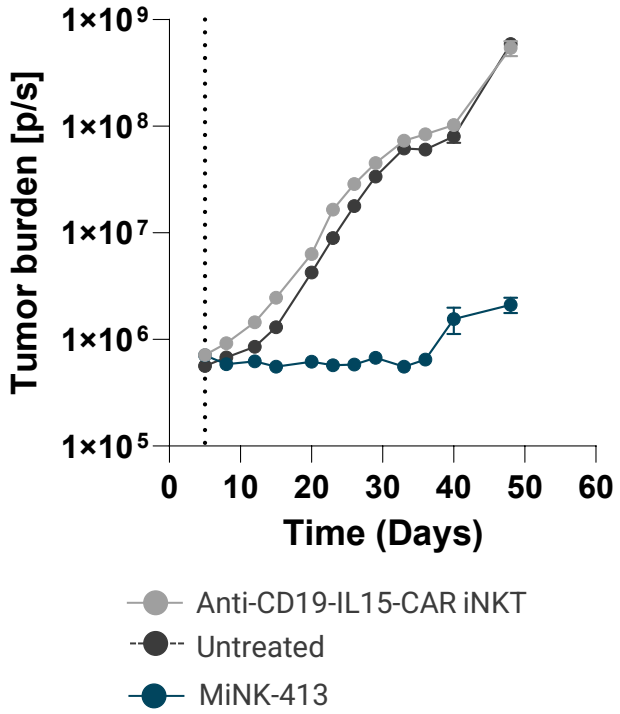
REDUCED TUMOR BURDEN AND IMPROVED SURVIVAL IN MINK-413 TREATED MICE

Multiple Myeloma
Mouse Model

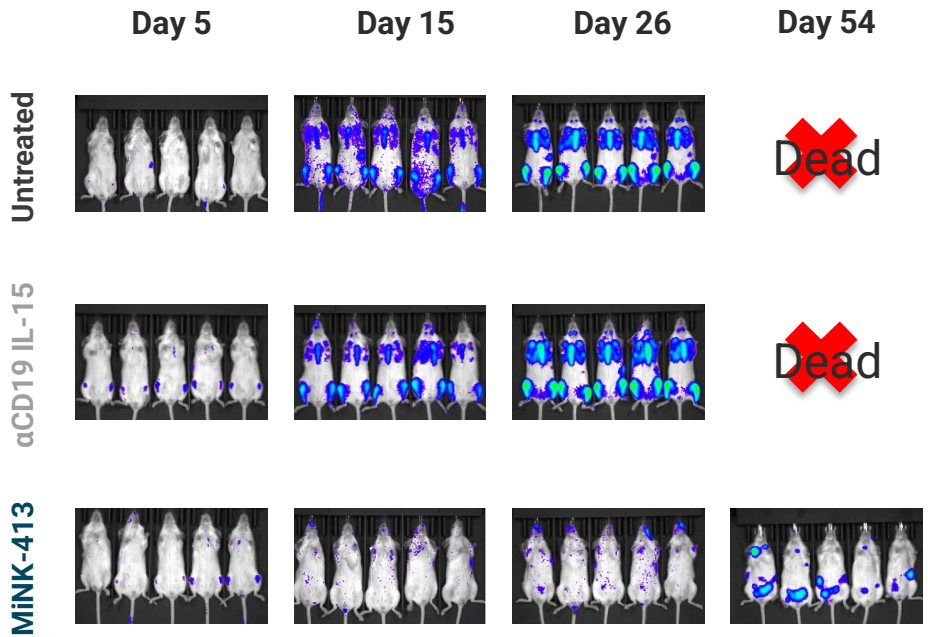


- Day 0: MM.1S tumor cells injected into NOG mice
- Day 5: First dose of BCMA-CAR-IL15 iNKT cells administered
- Day 12, 18: Additional doses of BCMA-CAR-IL-15 iNKT cells

MiNK-413 Delays Tumor Growth



MiNK-413 Promotes Survival



Source: Chantzoura E et al, SITC 2022, Poster 322

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BROAD TARGET APPLICATION IN ONCOLOGY AND INFLAMMATION

Oncology

- Multiple Myeloma
- Potential synergies with non BCMA targeting CD3 engagers

Autoimmune

- SLE, Myasthenia Gravis, Amyloidosis, NMO
- Depletion of BCMA+ cells

SLE: Systemic Lupus Erythematosus, NMO: Neuromyelitis Optics

MiNK Therapeutics

Summary & Milestones

MiNK Therapeutics

MINK IS PIONEERING ALLOGENEIC INKT CELL THERAPIES FOR ONCOLOGY

iNKTs Bridge Adaptive and Innate Immunity

Directly attack tumor cells, recruit host immunity, reshape tumor microenvironment

Broad Therapeutic capability

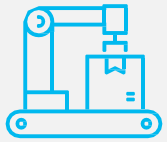
Opportunities in oncology and immune-mediated diseases

Clinical Proof-of-Concept

3 Phase 1 trials show tolerability and immune-modulating activity

Proprietary Cell Engineering

Platform for discovery of CARs, TCRs, and bispecific engagers



Proprietary Manufacturing at Scale

Efficient isolation process from healthy donors can generate >5,000 doses per donor

Access to Validated Immuno-oncology Therapies

Access to Agenus' immuno-oncology antibodies for combinations

MiNK Therapeutics

NEAR TERM-MILESTONES

	2023		2024		
agenT-797 Native iNKT	Initial clinical and persistence readout in solid tumors	Initiate Phase 2 in 2L gastric cancer	Launch Phase 2 in viral ARDS (externally funded)	Preliminary data readout for 2L Gastric cancer	Launch Phase 1/2 combination studies with BOT/BAL in solid tumors
MiNK - 215 FAP-CAR	Proof-of concept in vivo studies in solid tumor model	Analytical and Process Development activities	IND-enabling studies	Universal Donor selection for Drug Product	Planned IND Filing
MiNK - 413 BCMA-CAR	Proof-of concept studies in multiple myeloma model		Explore strategic partnering in oncology and non-oncology indications		

Source: Purbhoo MA et al, SITC 2023 Poster 735, Boi S et al, ASGCT 2023, Poster 1488, Chantzoura E et al, SITC 2022, Poster 322

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