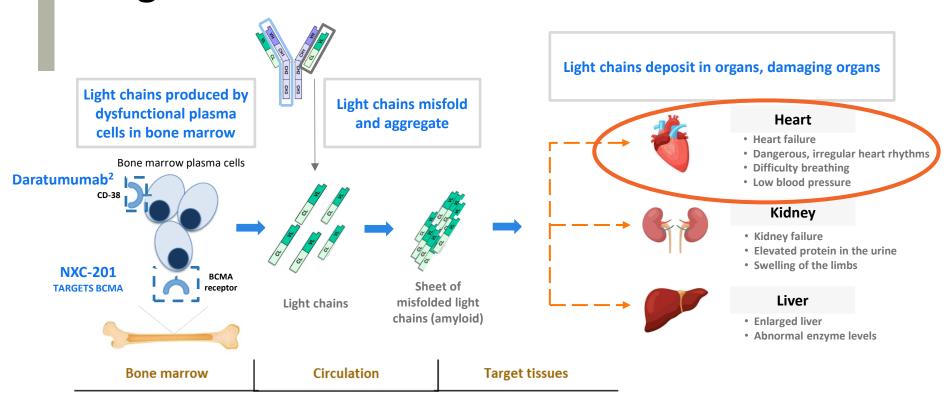
### Initial Safety and Efficacy Data from Nexicart-2, the First U.S. Trial of a CAR-T (NXC-201) in Relapsed or Refractory (R/R) Light Chain (AL)

Heather Landau<sup>1</sup>, Shahzad Raza<sup>2</sup>, Aaron Rosenberg<sup>3</sup>, Jeffrey Zonder<sup>4</sup>, Raymond Comenzo<sup>5</sup>, Vaishali Sanchorawala<sup>6</sup>, Michaela Liedtke<sup>7</sup>, Amandeep Godara<sup>8</sup>, Michael Rosenzweig<sup>9</sup>, Charlotte Hughes<sup>1</sup>, Eugene Brailovski<sup>1</sup>, Mehrdad Abedi<sup>3</sup>, Sham Mailankody<sup>1</sup>, Jae Park<sup>1</sup>, David Marks<sup>10</sup>, Sridevi Rajeeve<sup>1</sup>, Jennifer Liu<sup>1</sup>

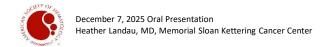
<sup>1</sup>Memorial Sloan Kettering Cancer Center, New York, NY, United States, <sup>2</sup>Cleveland Clinic Taussig Cancer Institute, Cleveland, OH, United States, <sup>3</sup>UC Davis Comprehensive Cancer Center, Sacramento, CA, United States, <sup>4</sup>Barbara Ann Karmanos Cancer Institute, Detroit, MI, United States, <sup>5</sup>Tufts Medical Center, Boston, MA, United States, <sup>6</sup>Boston Medical Center and Boston University Chobanian & Avedisian School of Medicine, Boston, MA, United States, <sup>7</sup>Stanford University School of Medicine, Stanford, CA, United States, <sup>8</sup>Huntsman Cancer Institute, University of Utah, Salt Lake City, UT, United States, <sup>9</sup>City of Hope, Duarte, CA, United States, <sup>10</sup>Immix Biopharma, Inc., Los Angeles, CA, United States

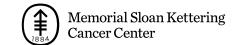


# Relapsed/Refractory AL Amyloidosis: ~32,500 U.S. Patients with No FDA Approved Drugs<sup>1</sup>

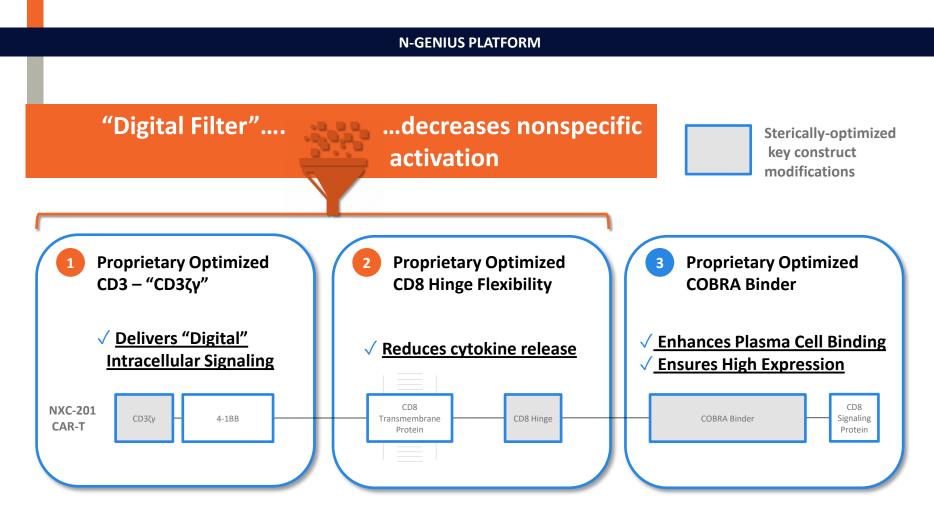


- 1. Quock et al. Blood Adv. 2018.
- 2. Kastritis et al. NEJM 2021.

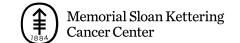




### **NXC-201: Sterically-Optimized CAR-T construct**



Manufacturing time: 10 days



<sup>1.</sup> Harush O et al. Haematologica 2022.

<sup>2.</sup> Lebel E et al. JCO 2024.

# NEXICART-2: First CAR-T Trial Designed For R/R AL Amyloidosis (NCT06097832)

#### Study design

- Open-label, single-arm, multi-site phase 1/2 study
- n=40 patients

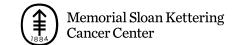
	Key criteria
Inclusion	<ul> <li>Exposed to at least 1 line of therapy, including CD38 monoclonal antibody + proteosome inhibitor</li> <li>Measurable hematologic disease, defined by one of the following:         <ul> <li>dFLC* &gt;50 mg/L (or 5 mg/dl)</li> <li>M-spike &gt; 0.5 mg/dl</li> <li>dFLC* &gt;20 mg/L (or 2 mg/dl) with abnormal k/l ratio¹</li> </ul> </li> </ul>
Exclusion	<ul> <li>Prior anti-BCMA directed therapy</li> <li>Cardiac: Mayo stage 3b, NYHA class III/IV</li> <li>Concomitant Symptomatic Multiple Myeloma</li> </ul>

<sup>\*</sup> dFLC = difference between the involved and uninvolved free light chain

#### **Outcome measures**

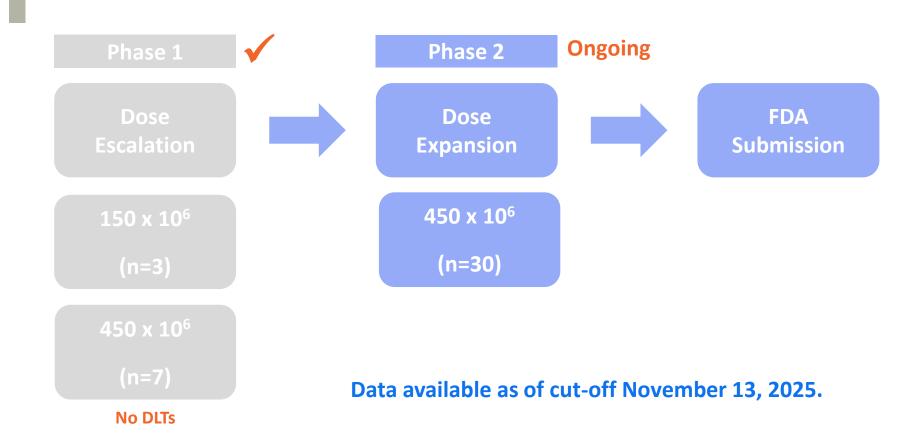
- Safety
- Efficacy: Complete hematologic response (CR) based on validated criteria<sup>2,3</sup>

- 1. Milani et al. Blood 2017.
- 2. Palladini G et al. JCO 2012.
- 3. Palladini G et al. Amyloid 2021.



### **NEXICART-2: Trial Design**

### Open to accrual June 2024





### **NEXICART-2: Patient Characteristics (N=20)**

	NX2-001	NX2-002	NX2-003	NX2-004	NX2-005	NX2-006	NX2-007	NX2-008	NX2-009	NX2-010	NX2-011	NX2-012	NX2-013	NX2-014	NX2-015	NX2-016	NX2-017	NX2-018	NX2-019	NX2-020	Median (range)
Age	56	67	82	64	62	72	77	66	63	80	65	65	59	49	73	59	71	71	82	64	66 (49-82)
Gender	Female	Female	Male	Female	Female	Male	Male	Male	Male	Male	Female	Female	Female	Female	Female	Male	Male	Female	Female	Female	-
Prior lines of therapy	4*	6**	2	4	4*	3	4*	4*	4*	3*	1	10	4**	1	8*	5	2	9*	2	3*	4 (1-10)
dFLC (mg/L)	65	24	-	86	42	26	47	121	84	-	-	70	274	26	54	24	194	73	45	22	54 (22-274)
M-spike (g/dL) ¥	ı	1	0.79	ı	ı	1	1	ı	ı	0.65	0.52	ı	1	1	1	1	1	1	1	1	-
Organ involvement	Heart/ Soft Tissue	Heart/GI/ Nerve	Kidney	Heart/GI/ Nerve	Kidney	Heart	Nerve/ Skin	Heart/ Liver	Heart/ Tongue	Kidney/ Heart	Heart/ Nerve/GI	Heart/GI	Heart	Heart/GI/ Nerve	Kidney	Nerve	Heart/ Kidney	Kidney	GI	Kidney	-
NYHA stage	I	II	I	I	I	I	I	II	I	Ш	II	II	ı	II	I	ı	II	I	ı	ı	-
NT-ProBNP (ng/L)	146	560	1,297	218	805	989	143	909	289	290	2,017	232	155	355	1,385	113	627	526	231	NA	355 (113-2,017)
hs-Troponin-I (ng/L)	7	6	42	7	11	31	14 <sup>†</sup>	47 <sup>++</sup>	6	52	6	11 <sup>†</sup>	13	10**	8	14**	75 <sup>††</sup>	7	5	0	10 (0-75)
Mayo Stage At Diagnosis	II	II	II	IIIa	I	IIIa	-	II	IIIb	IIIa	II	I	IIIa	II	II	ı	IIIa	I	ı	ı	-
At Enrollment	ı	Ш	IIIa	IIIa	Ш	IIIa	-	II	- 1	Ш	II	ı	Ш	ı	Ш	ı	IIIa	Ш	- 1	ı	-
Creatinine (mg/dL)	0.7	1.1	2.2	0.7	2.7	0.8	1.3	0.8	0.9	0.9	0.5	1.0	0.9	0.6	1.3	1.0	1.0	0.7	0.8	1.2	0.9 (0.5-2.7)
Albuminuria (mg/24 hrs)	143	0	3,032	0	10,274	0	135	360	13	2,153	135	144	136	310	2,061	6	5,660	2,000	140	4,478	144 (0-10,274)

<sup>\*</sup> Prior autologous stem cell transplantation (ASCT)

Note: NX2-002 M-Spike 0.57 g/dL, NX2-019 M-Spike 0.75 g/dL



<sup>\*\*</sup> Two prior ASCT

<sup>¥</sup> M-spike value if used as measurable disease

<sup>†</sup> Denotes Troponin-T

<sup>† †</sup> Denotes hs-Troponin-T

### **NEXICART-2:** Safety

### Only low-grade, brief CRS No neurotoxicity

Subject		NX2-001	NX2-002	NX2-003	NX2-004	NX2-005	NX2-006	NX2-007	NX2-008	NX2-009	NX2-010	NX2-011	NX2-012	NX2-013	NX2-014	NX2-015	NX2-016	NX2-017	NX2-018	NX2-019	NX2-020	Median (Range)
Dose	CART Cell Dose (x10 <sup>6</sup> )	150	150	150	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	-
	CRS	None	None	Grade 2	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 1	Grade 2	Grade 1	None	Grade 2	Grade 2	None	Grade 1	Grade 1	Grade 1	None	1 (1-2)
	CRS Onset (days)	None	None	3	3	1	1	1	1	1	3	2	1	None	1	1	None	1	1	2	None	1 (1-3)
	CRS Duration (days)	None	None	2	1	1	1	1	4	1	2	1	5	None	1	2	None	1	1	1	None	1 (1-5)
	Neurotoxicity	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	-
Other	Neutropenia	Grade 3	Grade 3	Grade 3	Grade 4	Grade 4	Grade 2	Grade 4	Grade 4	Grade 4	Grade 2	Grade 4	Grade 4	Grade 4	Grade 4	Grade 3	None	3 (2-4)				
	Febrile Neutropenia	None	None	None	None	None	None	None	Grade 3	None	None	None	None	None	None	None	None	None	None	None	None	-
	Anemia	Grade 1	Grade 2	Grade 3	Grade 1	Grade 3	Grade 1	Grade 2	Grade 2	Grade 1	Grade 1	Grade 2	Grade 2	Grade 1	Grade 3	Grade 3	Grade 1	Grade 2	Grade 2	Grade 3	Grade 3	2 (1-3)
	Thrombocyto- penia	Grade 1	Grade 1	Grade 1	Grade 1	Grade 3	Grade 2	None	Grade 4	Grade 3	Grade 1	Grade 1	Grade 3	Grade 1	Grade 2	Grade 3	Grade 1	Grade 2	Grade 1	Grade 1	None	1 (1-4)
	Acute kidney failure	None	None	None	None	Grade 4*	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	-
	LFT Abnormalities	None	None	None	None	None	None	None	Grade 1	None	None	None	Grade 3	None	Grade 3	None	None	Grade 1	None	None	None	-
	≥ Grade 3 Infections	None	None	None	None	Grade 5*	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	-
	Fatigue	None	Grade 2	Grade 2	Grade 2	Grade 1	Grade 1	None	None	None	Grade 2	Grade 2	None	Grade 2	None	Grade 2	Grade 2	None	None	None	None	2 (1-2)
	Cardiac Event	None	None	None	Grade 2¥	None	None	None	None	None	Grade 2 <sup>¥</sup>	None	-									

**CRS** = cytokine release syndrome

Note: CRS and ICANS reported according to ASTCT Consensus Grading

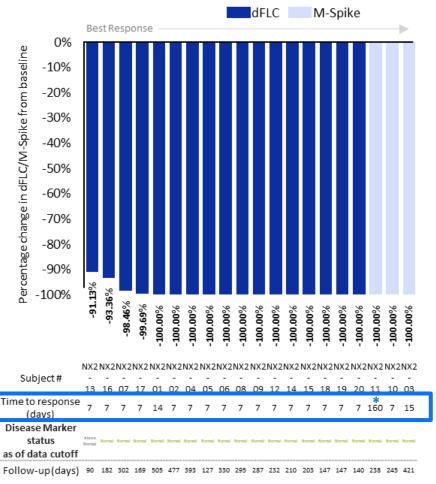


<sup>\*</sup>Six months after dosing, deemed not drug related; acute on chronic kidney injury in patient with stage 4 CKD at enrollment

<sup>&</sup>lt;sup>¥</sup> Two patients with pre-existing atrial fibrillation experienced transient arrythmias response to beta-blockers

### **NEXICART-2 Efficacy:**

### Rapid normalization of pathologic paraprotein



Cut-off November 13, 2025. Median follow up 235 days (7.8 months) (range (days) 90-505)

19/20 (95%) patients' disease marker normalized

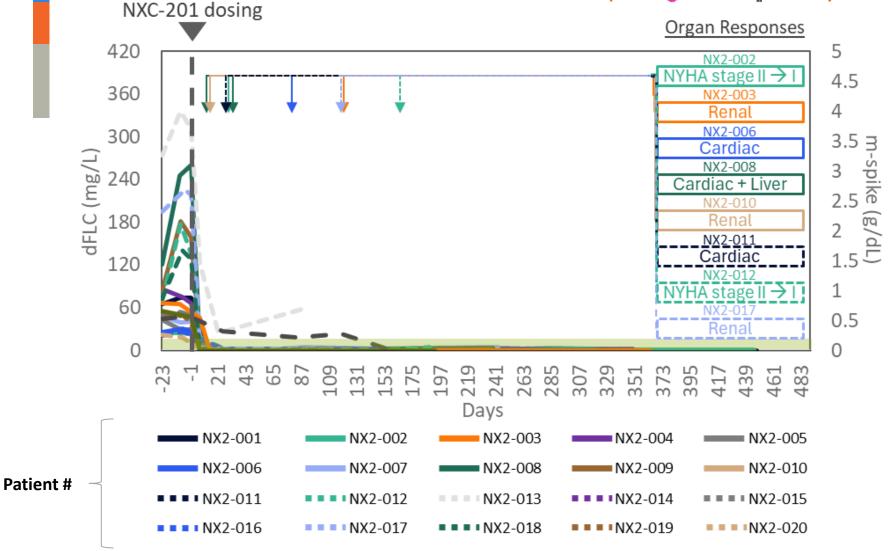
Immunofixation may persist for longer



<sup>\*</sup> IgG sub-type (NX2-011) having a longer half-life than IgA (NX2-003, NX2-010)

### **NEXICART-2 Efficacy**:

- 19/20 (95%) early and deep hematologic responses
- Organ responses in 70% (7/10) evaluable patients (75% , 60% , 100% )
- Median time to response 33 and 113 days







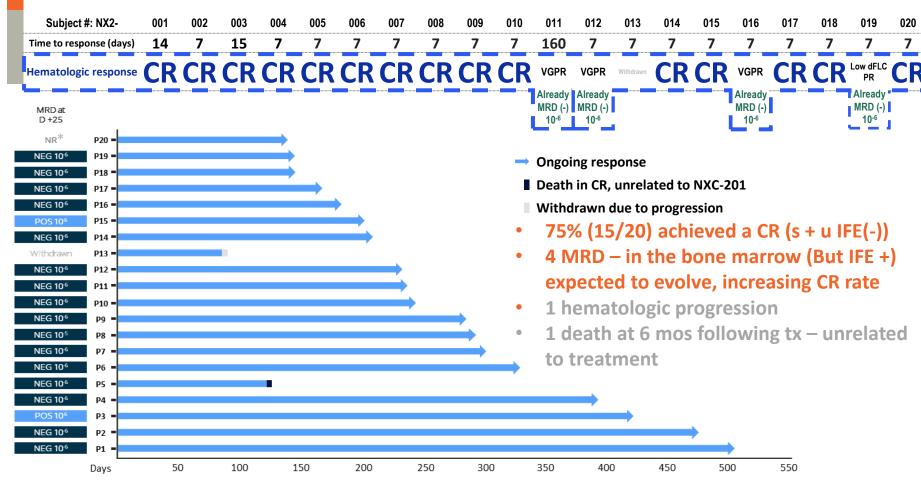
### ... In Patient's Own Words (day +15)

"Hi Dr Landau! Here we are a week tomorrow since I left the hospital (At day 10 after those magic CAR-T cells came on board)! Just had to tell you I've been very happily & comfortably walking 2-3+ miles each day & doing great on the inclines (even the cross) overs on the River walk!) as we explore different nooks & crannies & sidewalk cafes of the beautiful Upper East Side!!! (Eating plenty at those cafes too!) I know you said CAR-T should be easier than stem cell transplant, & that has proven to be more accurate than I could have hoped for!! The hospital path was so much smoother & less eventful than the stem cell days! I never thought I'd be feeling this strong & vibrant, just 15 days after my CAR-T cell infusion!! Nor did I ever guess that I'd be feeling stronger & experiencing less of that horrible leg fatigue, shortness of breath & chest tightness, that was ever increasing & weighing me down for the months preceding this!! AMAZING & truly beyond my wildest dreams!! My family & I can never thank you & your teams enough for all you do continuously to bring these amazing treatment options to us, & for the amazing beautiful way you guide us through! I'd be happy to share my experience with other patients considering CAR- T cells, if that's an option at some point. See you soon! 👺 🌼 🦾 "



# NEXICART-2: 75% complete response rate as reviewed by an independent review committee

n=20. Cut-off November 13, 2025. Median follow up 235 days (7.8 months) (range (days) 90-505)



Minimal residual disease (MRD) negativity was assessed by flow cytometry or clonoSEQ with sensitivity 10<sup>-6</sup> or 10<sup>-5</sup>

Palladini G et al. JCO 2012.
Palladini G et al. Amyloid 2012.
Milani P et al. Blood 2017.
Roshal M et al. Blood Advances 2017.

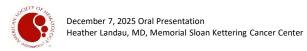


### **Conclusion**

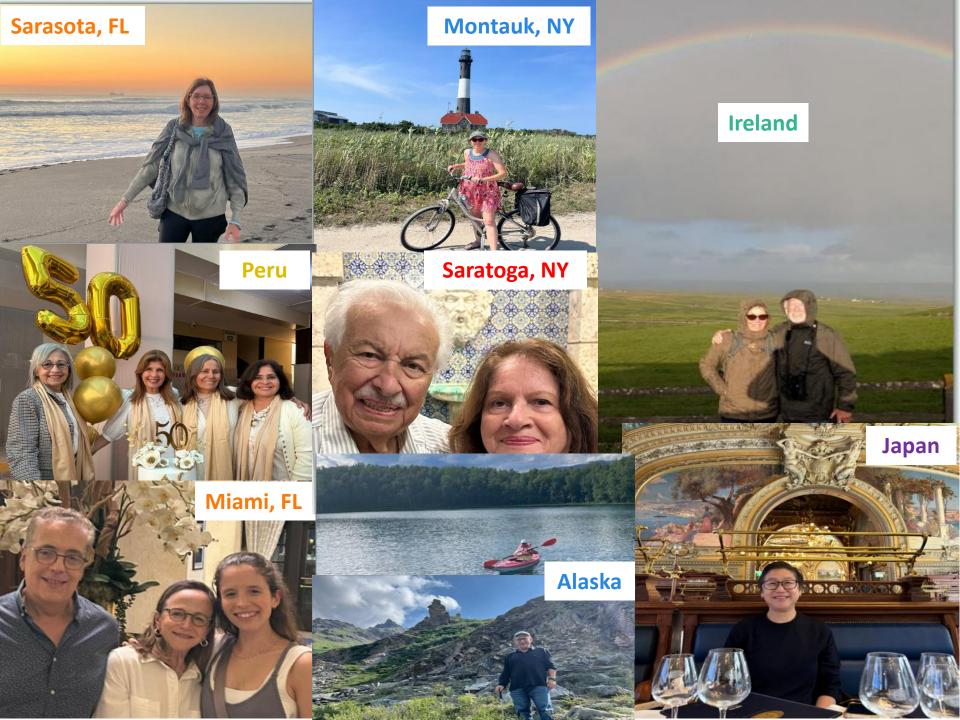
- NXC-201 a novel BCMA-directed CAR-T cell can be administered safely & efficiently to patients with R/R AL amyloidosis population without a single FDA-approved treatment available who have a true unmet medical need
  - 100% treated with a vein-to-vein time 14 days
  - Low grade CRS and no neurotoxicity of any kind
- Rapid and deep hematologic responses, median time to response 7 days
  - 16/18 evaluable patients MRD negative (10<sup>-6</sup> or 10<sup>-5</sup>)
  - 75% hematologic CR rate (s + u IFE(-)), potential to evolve (up to 95%)
  - Organ responses in 70% (7/10) evaluable patients (75% ♥ 60% ♠ 100% ♥)

90% remain on study, in hematologic remission at median 7.8 months, including 5 > 12 months

Multicenter trial is ongoing and continuing to accrue







### **Grateful for....**

- The research staff, clinical teams, apheresis units, cell therapy labs and investigators at each participating site
- The patients and their families



### Thank you for your attention!



### Study was funded by:





NIH/NCI Cancer Center Support Grant P30 CA008748.

