NEXCELLA

NEXT GENERATION CELL THERAPIES

Next Generation Cell Therapies

Targeting Oncology & Other Diseases

November 2023

Forward Looking Statements

This presentation contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this presentation, including statements regarding Nexcella, Inc. (the "Company") strategy, future operations, future financial position, projected costs, prospects, plans, and objectives of management, are forward-looking statements. The words "anticipate," "believe," "continue," "could," "depends," "estimate," "expect," "intend," "may," "ongoing," "plan," "potential," "predict," "project," "target," "should," "will," "would," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. The Company may not actually achieve the plans, intentions, or expectations disclosed in these forward-looking statements, and you should not place undue reliance on these forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in these forward-looking statements. In addition, the forward-looking statements included in this presentation represent the Company's views as of the date of this presentation. The Company anticipates that subsequent events and developments will cause its views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, it specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date of this presentation.

Nexcella Investment Highlights

1	**First CAR-T, NXC-201, in AL Amyloidosis**	• 100% overall response rate in relapsed/refractory AL amyloidosis ($3bn market) • No drugs approved in relapsed/refractory AL amyloidosis today
2	**Expanding into Autoimmune indications**	• NXC-201 expanding into Systemic Lupus Erythematosus, Vasculitis, Dermatomyositis, Myasthenia Gravis, Multiple Sclerosis, Scleroderma - a $30 bn combined annual market size
3	**First "single-day CRS" CAR-T in multiple myeloma**	• NXC-201: first "single-day CRS" CAR-T (median day 1 onset) enables patients to return home 80% faster • 95% overall response rate in relapsed/refractory multiple myeloma ($18bn market)
4	**NXC-201 n=72 patients across 11 peer-reviewed publications**	• 2 Presentations (1 Oral) at 2023 *American Society of Hematology (ASH) 65th Meeting* • Mature dataset: *American Society of Cell and Gene Therapy, Haematologica,* other publications • Precedents for open-label, single-arm FDA approvals at ~100 patient dataset – Carvykti, Abecma
5	**First CAR-T Overcoming Neurotoxicity**	• ~10-20x potential increase in CAR-T addressable market through wider hospital availability • ~5x potential hospital per-bed revenue increase by reducing CAR-T hospitalization time • Overcoming neurotoxicity allows expansion into: AL Amyloidosis, autoimmune, others

World-Class Team

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Leadership

Ilya Rachman, MD, PhD
Executive Chairman

Cedars Sinai · UCLA Health · UIC College of Medicine

Gabriel Morris, BA
President

Columbia University in the City of New York · Goldman Sachs

Gerhard Bauer
Head of Cell Therapy Manufacturing

American Society of Gene + Cell Therapy · UC Davis University of California

David Marks, MBBS, PhD
Chief Medical Officer, Cell Therapy

NHS University Hospitals Bristol NHS Foundation Trust · Drexel University · Pfizer

TECARTUS® Kite/Gilead
KYMRIAH® Novartis

Board of Directors Members

Henry A. McKinnell, PhD
Former Pfizer, Inc.
Chief Executive Officer

Pfizer · Moody's

Helen Adams, CPA
Former Prometheus Biosciences Board Member

Prometheus Biosciences · Deloitte.

Jeffrey H. Cooper, MBA
Former BioMarin
Chief Financial Officer

BIOMARIN

Mary Sue Coleman, Ph.D
Former Johnson & Johnson Board Member

Johnson & Johnson · University of Michigan

Edward J. Borkowski, CPA MBA
Former Mylan Chief Financial Officer

Mylan

Scientific Advisory Board Members

Heather Landau, MD (MSK) • Director, Amyloidosis Program

Memorial Sloan Kettering Cancer Center

Suzanne Lentzsch, MD, PHD (Columbia) • Director, Multiple Myeloma and Amyloidosis

Columbia · Columbia University Herbert Irving Comprehensive Cancer Center

Michaela Liedtke, MD (Stanford) • Co-Director, Stanford Amyloid Center

Stanford Medicine

N-GENIUS Platform Overview

N-GENIUS PLATFORM

3 Key Elements	Allows Nexcella To...
Purpose-Built Cell Therapy Evidence Capture Engine + Relational Database Relating Nexcella internal data to external to accelerate therapy design, manufacture, and preclinical	Rapidly Pursue Additional Proven Target Indications
Proprietary EXPAND technology Applied to multiple cell therapy indications, already utilized to create NXC-201, to potentially increase efficacy and tolerability	Optimize CAR-T constructs across CAR-T indications to reduce toxicity without sacrificing efficacy to allow widespread adoption
Atomized, Novel Binding Scaffold Generation Engine Allows us to make the correct binding for every molecule	Identify specific relevant binder optimizations in each CAR-T candidate to increase or decrease binding affinity and avidly as appropriate

Broad Autoimmune Disease Applicability of the Nexcella N-GENIUS Platform

Overcoming Neurotoxicity Enables Indication Expansion For NXC-201

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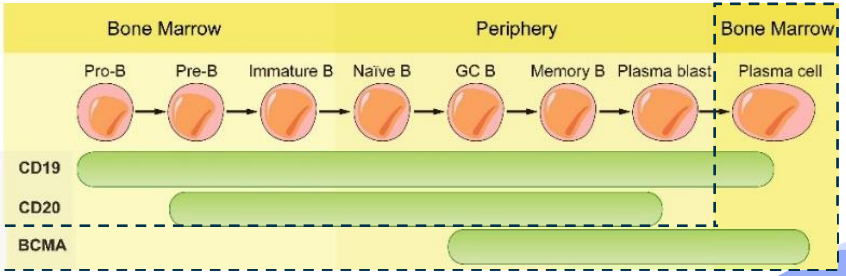
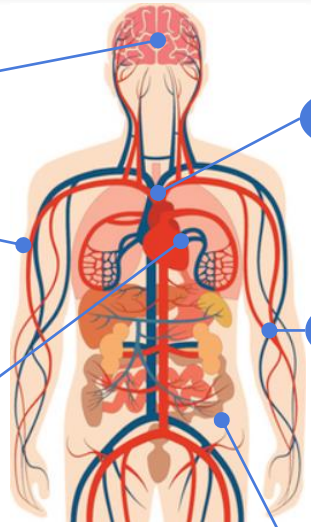
Neurology
- Myasthenia Gravis
- Neuromyelitis Optica Spectrum Disorder
- Multiple Sclerosis
- CANOMAD syndrome

Dermatology
- Pemphigus Vulgaris
- Linear IgA bullous dermatosis
- Scleroderma
- Dermatomyositis

Gastroenterology
- Ulcerative Colitis
- Celiac disease





Rheumatology
- Systemic Lupus Erythematosus
- Rheumatoid Arthritis
- Sjögren Disease
- Polymyositis
- Ankylosing Spondylitis

Hematology
- ✓ AL Amyloidosis
- Behcet's disease
- Autoimmune Hemolytic Anemia
- Pure Red Cell Aplasia
- Immune Thrombocytopenic Purpura
- Waldenström macroglobulinemia
- IgA vasculitis
- POEMS Syndrome

Nephrology
- IgA nephropathy
- IgM nephropathy
- Staphylococcus-associated glomerulonephritis

Other diseases

AL Amyloidosis, Multiple Myeloma
(3-days hospital instead of 14-days)

Overcoming neurotoxicity

*Illustrative list of autoimmune diseases where B cells may play a role in initiating or maintaining disease, and where NXC-201 may provide a potential treatment

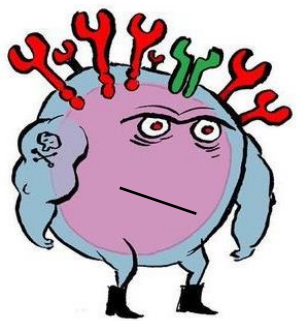
Source: *MedicTests. Lee, J. et al. Antigen-specific B cell depletion for precision therapy of mucosal pemphigus vulgaris. J. Clin. Invest. 2020. Mackensen, A. et al. Anti-CD19 CAR T cell therapy for refractory systemic lupus erythematosus. Nat. Med. 2022. Qin C, et al. Anti-BCMA CAR T-cell therapy CT103A in relapsed or refractory AQP4-IgG seropositive neuromyelitis optica spectrum disorders: phase 1 trial interim results. Signal Transduct Target Ther. 2023. Granit V, et al. Safety and clinical activity of autologous RNA chimeric antigen receptor T-cell therapy in myasthenia gravis (MG-001): a prospective, multicentre, open-label, non-randomised phase 1b/2a study. Lancet Neurol. 2023. Shaker OG, et al. Expression of TNF-α, APRIL and BCMA in Behcet's disease. J Immunol Res. 2014. Shimanovsky A, et al. Autoimmune manifestations in patients with multiple myeloma and monoclonal gammopathy of undetermined significance. BBA Clin. 2016. McGlothlin J, et al. Bortezomib and daratumumab in refractory autoimmune hemolytic anemia. Am J Hematol. 2023. Casadevall N. What is antibody-mediated pure red cell aplasia (PRCA)? [published correction appears in Nephrol Dial Transplant. 2005.Yu TS, et al. Abnormalities of bone marrow B cells and plasma cells in primary immune thrombocytopenia. Blood Adv. 2021. Greenberg SA, et al. Plasma cells in muscle in inclusion body myositis and polymyositis [published correction appears in Neurology. 2006. Wilbrink R, et al. B Cell Involvement in the Pathogenesis of Ankylosing Spondylitis. Int J Mol Sci. 2021. Uzzan M, et al. Ulcerative colitis is characterized by a plasmablast-skewed humoral response associated with disease activity. Nat Med. 2022. Zhang Z, Xu Q, Huang L. B cell depletion therapies in autoimmune diseases: Monoclonal antibodies or chimeric antigen receptor-based therapy?. Front Immunol. 2023*

Neurotoxicity Restricts CAR-T Adoption

Parkinson's Like Symptoms
(can develop after 3 months)

Long Hospital Stay
(average ~14 days)

CAR-T Neurotoxicity



Limited Hospital Access
(can only be dosed in 5% hospitals in the US)

Patient Deaths
(On FDA Appproval Labels)

Memorial Sloan Kettering Cancer Center

AACR American Association for Cancer Research

CANCER DISCOVERY

"Chimeric antigen receptor (CAR) T-cell therapy is highly effective … **but is hindered by neurotoxicity."**

doi: 10.1158/2159-8290.CD-17-1319

N-GENIUS Platform: EXPAND Technology + COBRA Binder (1/2)

N-GENIUS PLATFORM

3 Key Elements

Purpose-Built Cell Therapy Evidence Capture Engine + Relational Database

Relating Nexcella internal data to external to accelerate therapy design, manufacture, and preclinical

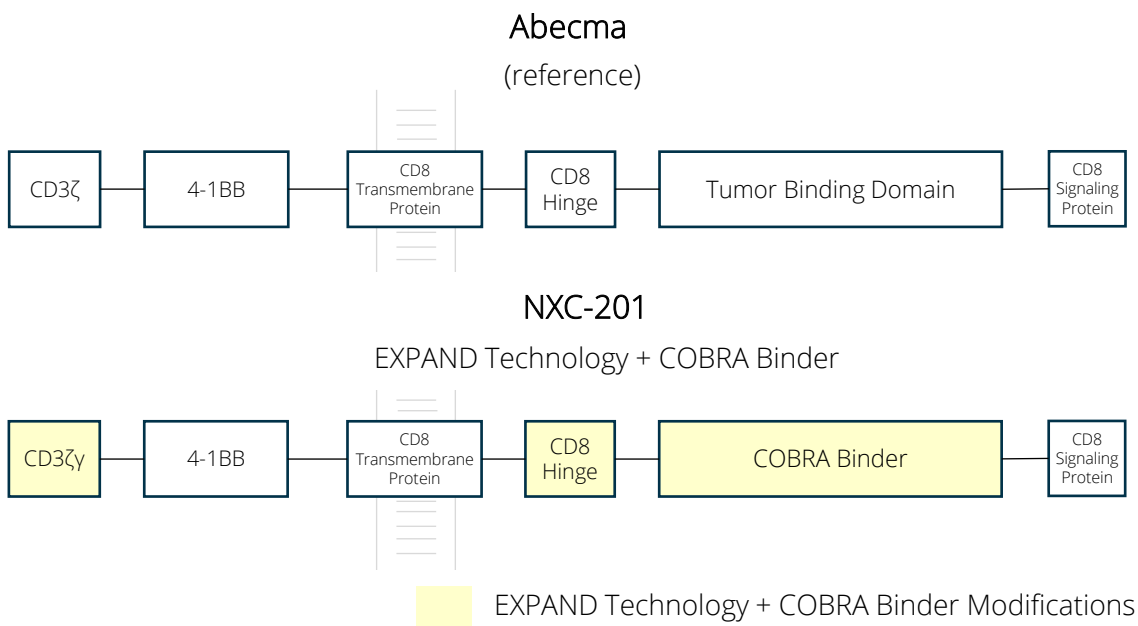
Proprietary EXPAND technology

Applied to multiple cell therapy indications, already utilized to create NXC-201, to potentially increase efficacy and tolerability

Atomized, Novel Binding Scaffold Generation Engine

Allows us to make the correct binding for every molecule

Produced NXC-201



Source:. Aherie, N., et al Haematologica. 2022

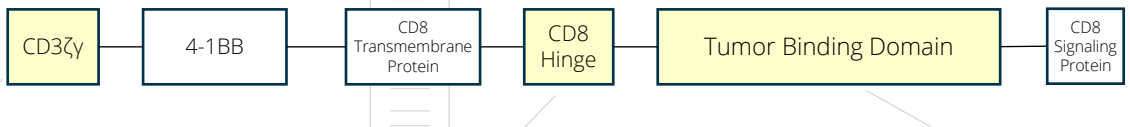
N-GENIUS Platform: EXPAND Technology + COBRA Binder (2/2)

N-GENIUS PLATFORM

Overview Of Custom EXPAND Technology + COBRA Binder in NXC-201

NXC-201

EXPAND Technology + COBRA Binder



EXPAND Technology + COBRA Binder Modifications

1 Proprietary Optimized CD3ζ – "CD3ζ γ"

2 Proprietary Optimized CD8 Hinge Flexibility

3 Proprietary Optimized COBRA Binder Enhances Tumor Binding + Ensures High Expression

- ✓ Delivers "Digital" Intracellular Signaling
- ✓ Eliminates Neurotoxicity, Reduce CRS Duration
- ✓ Enhances Efficacy In Heavily Pretreated Patients

"Single amino acid substitutions at key sites can affect CAR-T function over 200-fold range"

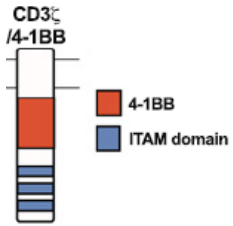
Source:. Aherie, N., et al Haematologica. 2022; LaFleur, D. PEGS Boston. 2021

1 Proprietary Optimized CD3ζ + CD8 Delivers "Digital" Intracellular Signaling, Eliminates Neurotoxicity, Reduces CRS Duration

CD3ζ

- CARs rely on activation of CAR-T cells through CD3ζ derived immunoreceptor tyrosine-based activation motifs (ITAMs), typically 3 ITAM motifs per CAR
- NXC-201 adds a positively charged amino acid (lysine) next to a tyrosine phosphorylation site, therefore:
  - ✓ Impeding phosphorylation of ITAM1 (by affecting protein folding dynamics which block the tyrosine site), thus reducing intracellular reactivity
  - ✓ Adding an additional site for ubiquitination, allowing the CAR to be marked for degradation more rapidly than a traditional CAR

  The combined effect of these modifications is to drive a "digital" signaling of extracellular activity, that is on when antigen is present and off when not
- Modification of ITAMs is a common theme in third-generation CAR design, with publications in Nature Medicine and by Memorial Sloan Kettering on the topic



nature Signal Transduction and Targeted Therapy

"In activated T cells, the CD3ζ chain gets ubiquitinated by CBLB at its multiple lysine residues and induces degradation of surface TCRs"

doi: 10.1038/s41392-021-00823-w

nature medicine

Memorial Sloan Kettering Cancer Center

"We hypothesized that the redundancy of CD28 and CD3ζ signaling in a chimeric antigen receptor (CAR) design incorporating all three CD3ζ immunoreceptor tyrosine-based activation motifs (ITAMs)11,13 may foster counterproductive T cell differentiation and exhaustion. **Therefore, we calibrated ITAM activity by mutating tyrosine residues to impede their phosphorylation and downstream signaling**"

doi: 10.1038/s41591-018-0290-5

Source:: Feucht J, et al. Nat Med. 2019; Shah K, et al. Signal Transduct Target Ther. 2021

2 Proprietary Optimized CD3ζ + CD8 Delivers "Digital" Intracellular Signaling, Eliminates Neurotoxicity, Reduces CRS Duration

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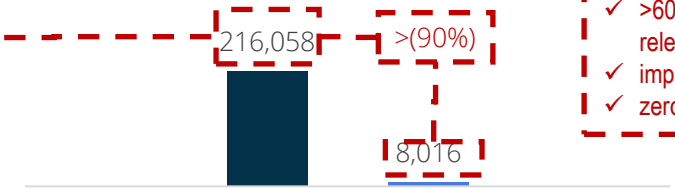
CD8 Hinge

Preclinical

NXC-201: Optimized (Decreased) CD8 Hinge Flexibility Resulted In:
- ✓ >90% reduction in cytokine release in preclinical studies
- ✓ improved human efficacy
- ✓ zero neurotoxicity

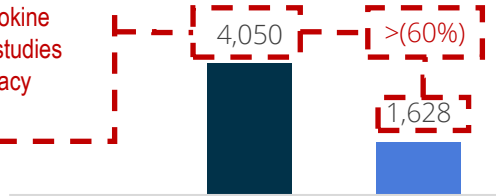


IFNγ (pg/mL): K562-BCMA co-culture

bb2121 (Abecma) NXC-201

Interferon-c (IFN-c) release after 24 h of co-culture of CAR T cells with BCMA+ (K562-BCMA, RPMI-8226, U266-B1, H929) targets.

Literature: Optimized (Decreased) CD8 Hinge Flexibility Resulted In:
- ✓ >60% reduction in cytokine release in preclinical studies
- ✓ improved human efficacy
- ✓ zero neurotoxicity



IFNγ (pg/mL): K562-CD19 co-culture

Kymriah CD19-BBz(86)

CAR+ T cells were stimulated with K562 cells expressing human CD19. Supernatant was harvested after 24 hours of incubation, and the indicated cytokines were measured by cytokine bead array. Results are representative of two-to-four independent experiments.

Clinical

		Abecma	NXC-201	Kymriah	CD19-BBz(86)
Efficacy	ORR (%)	72	87	52	73
	CR (%)	28	57	40	55
CRS	CRS, any grade (%)	85	94	58	28
	CRS, Grd3+ (%)	9	14	22	0
	Duration, CRS (days)	7	1	7	n/a
Neurotoxicity	Neurotoxicity, Grd1-5 (%)	28	0	21	0

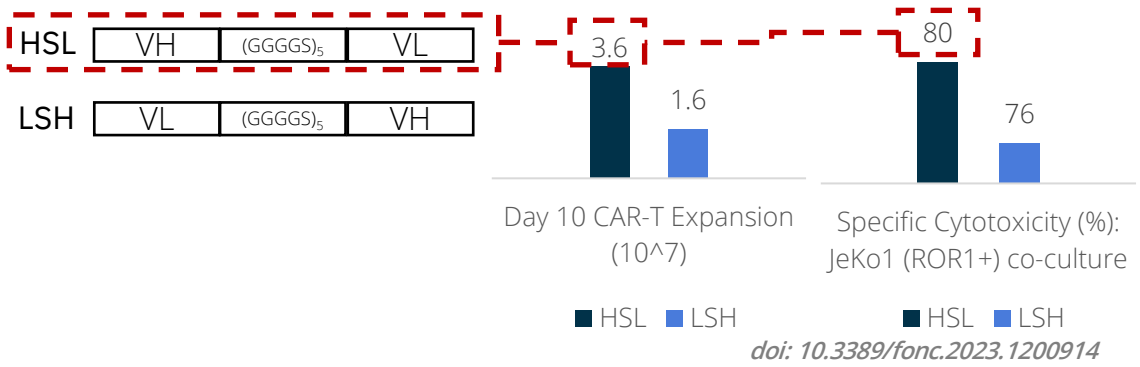
Optimized (Decreased) CD8 Hinge Flexibility Results in Zero Neurotoxicity, Improved Human Efficacy, and reduction in CRS duration

Source:: Ying Z, et al. Nat Med. 2019; Schuster SJ, et al. N Engl J Med. 2019; Assayag, M., et al EBMT 2023; Abecma FDA label; Harush O, et al. Haematologica. 2022; Friedman KM, et al. Hum Gene Ther. 2018. Kymriah: Preclinical is an average of CD8+ and CD4+ T-cells, source: Milone MC, et. Al. Mol Ther. 2009 Aug;17(8):1453-64. doi: 10.1038/mt.2009.83. Epub 2009 Apr 21. Erratum in: Mol Ther. 2015 Jul;23(7):1278. PMID: 19384291; PMCID: PMC2805264.

3 Optimal Tumor Binding While Ensuring High Expression

COBRA Binder

COBRA Binder Leads with Heavy Chain …



doi: 10.3389/fonc.2023.1200914

.. Proven Linker of Heavy and Light Chain Employed

Biomarker Research

"Glycine (Gly) and serine (Ser) residues provide the flexibility necessary for antigen-binding sites to change conformation and maintain good stability in aqueous solutions… prevent[ing] formation of secondary structures and reduc[ing] likelihood of the linker interfering with the folding and function of the scFv"

September 19, 2022

doi: 10.1186/s40364-022-00417-w

- NXC-201 COBRA Binder: Heavy Chain – Proven Linker – Light Chain Configuration, enabling:

✓ **Rapid, Sustained CAR-T Expansion**

✓ **Improved Cytotoxicity in the presence of antigen**

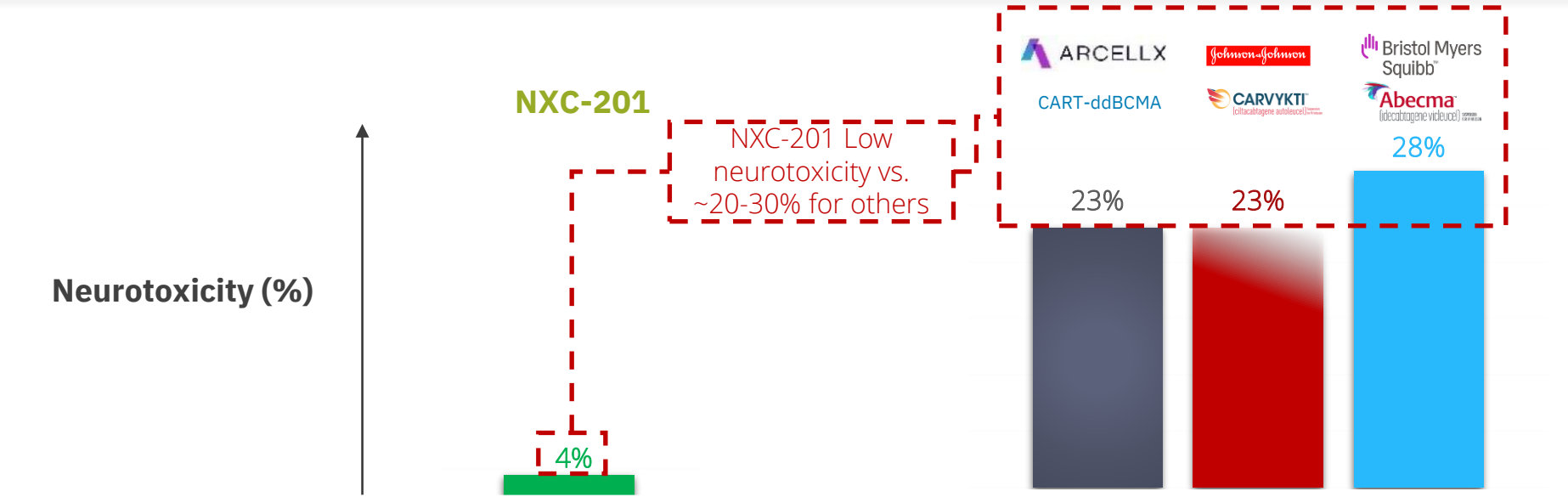
Source:: Moreno-Cortes E,. et al Front Oncol. 2023; Mazinani M, et al. Biomark Res. 2022.

Nexcella Resolves Neurotoxicity

Resolving CAR-T Neurotoxicity

- **No Parkinson's Like Symptoms**
- **Short Hospital Stay** (average ~3 days)
- **Broad Hospital Access** (can access vast majority of hospitals in the US)
- **No Deaths Across 58 Patients in Clinical Trial**

NXC-201 Is Overcoming Prolonged CRS and Neurotoxicity



	NXC-201	CART-ddBCMA	CARVYKTI	Abecma
Median CRS Onset (Days)	1	2	7	1
Median CRS Duration (Days)	1	5-8	4	7
Range CRS Duration (Days)	1-7	3-13	1-40	1-63
Number of patients (n)	50	31	97	127

Source: Carvykti and Abecma FDA labels, Arcellx Corporate Presentation. Assayag, N., et al. European Society for Blood and Marrow Transplantation 49th Annual Meeting. Lebel E, et al. Efficacy and Safety of a Locally Produced Novel Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory Multiple Myeloma, International Myeloma Society 20th Annual Meeting. 2023.. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies. Figures reflect cross-trial comparison and not results from a head-to head study.

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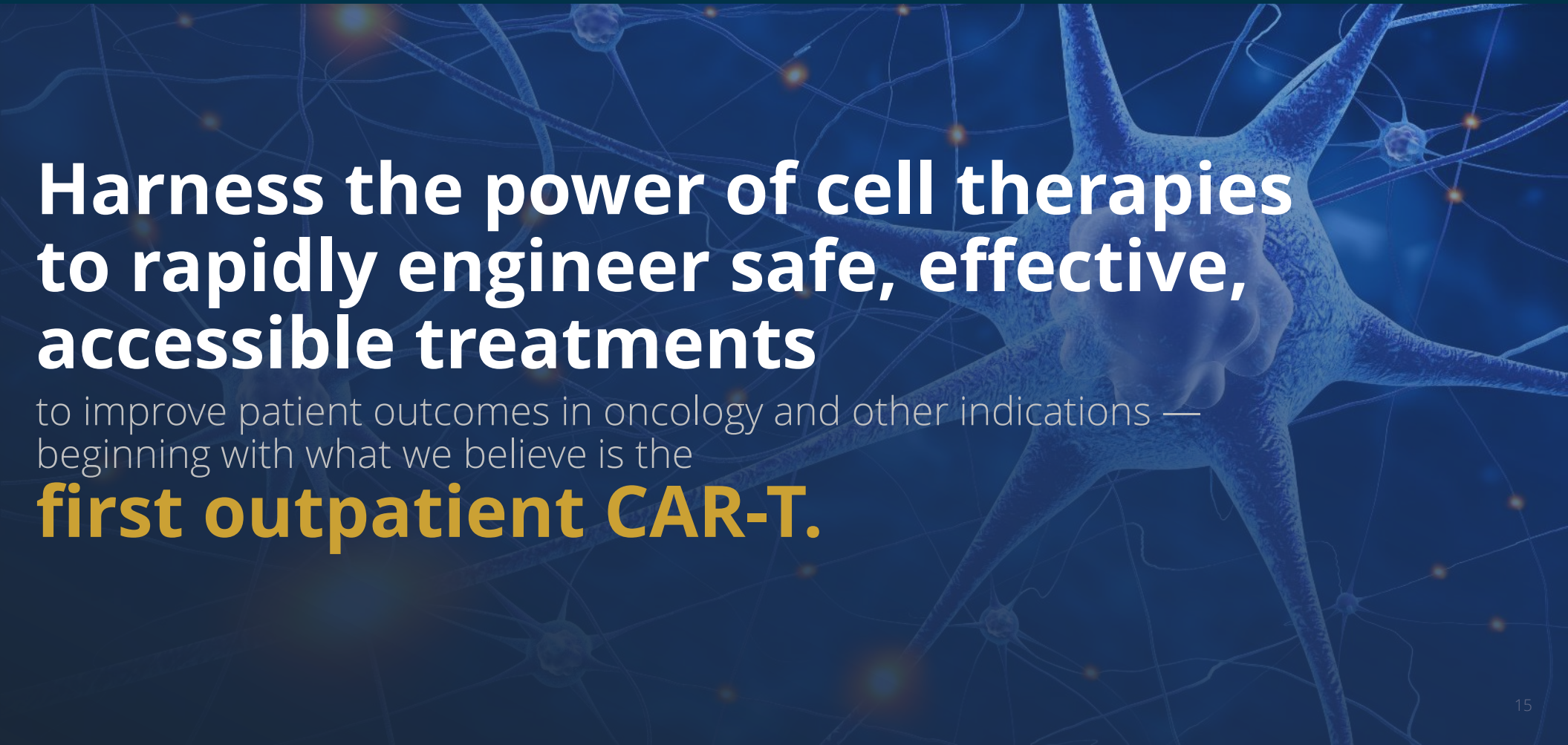
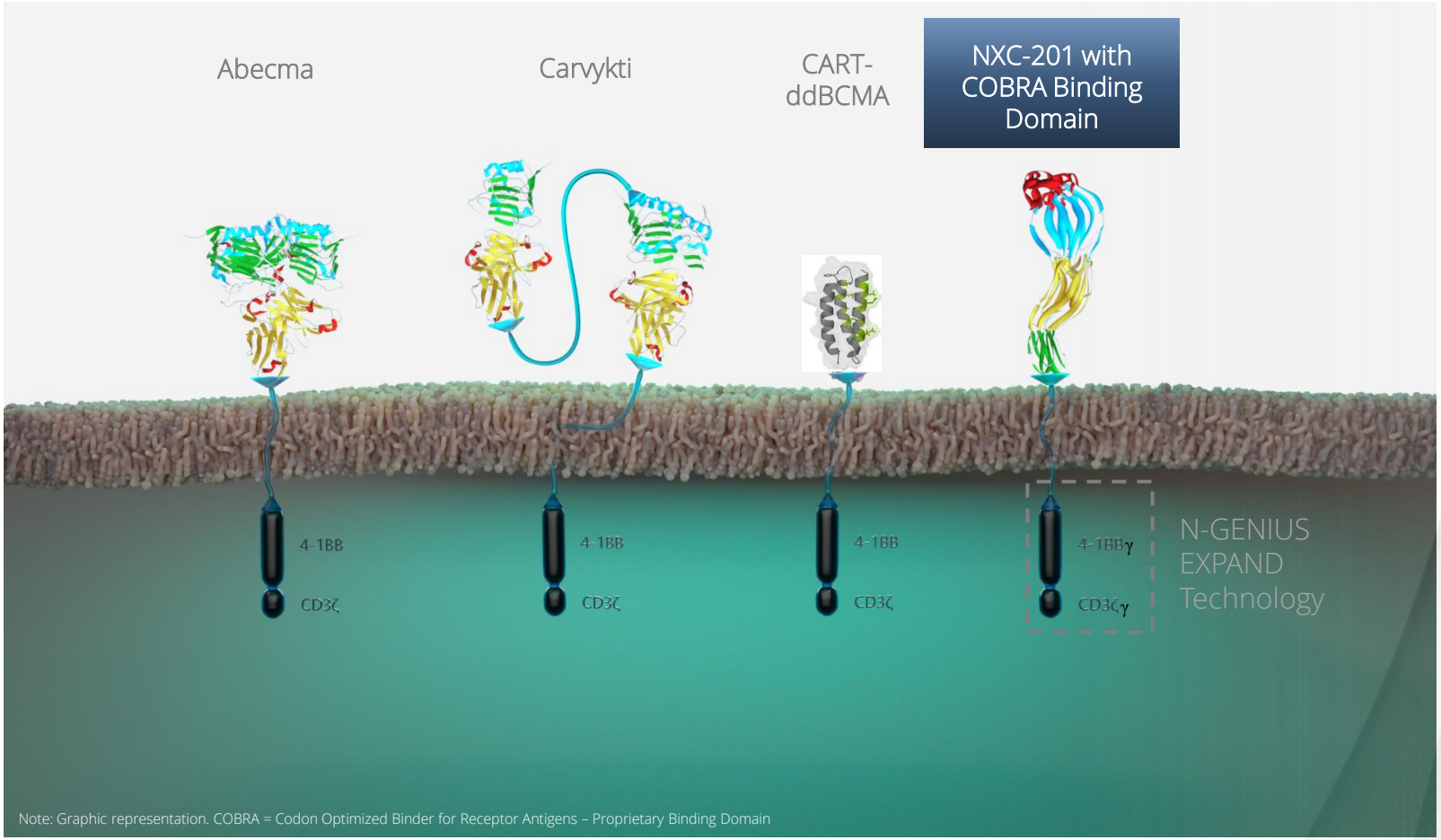


Harness the power of cell therapies to rapidly engineer safe, effective, accessible treatments

to improve patient outcomes in oncology and other indications — beginning with what we believe is the

first outpatient CAR-T.

N-GENIUS Technology Platform – Proprietary COBRA Binding Domain Is a Differentiated Innovation

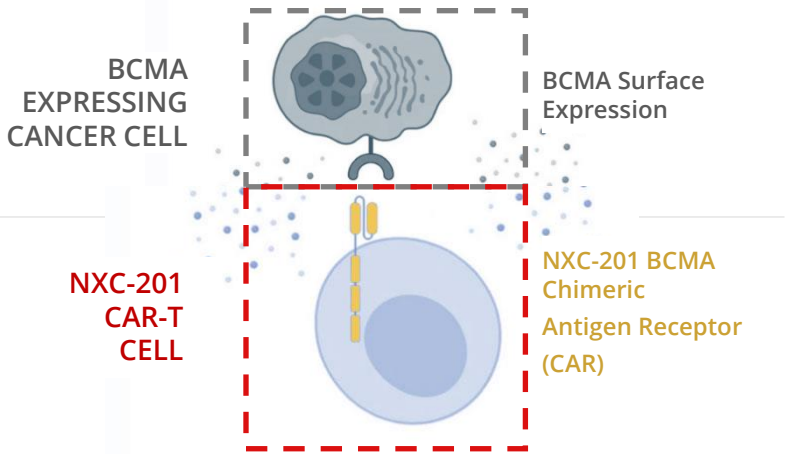


Note: Graphic representation. COBRA = Codon Optimized Binder for Receptor Antigens – Proprietary Binding Domain

NXC-201: Next Generation CAR-T For AL Amyloidosis and Multiple Myeloma

NXC-201: FIRST BCMA CAR-T GENERATED BY THE N-GENIUS PLATFORM

NXC-201



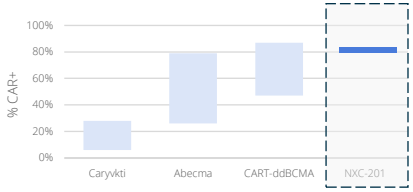
- NXC-201 is a next-generation chimeric antigen receptor (CAR) T-cell (CAR-T) produced by our N-GENIUS platform targeting B-cell maturation antigen (BCMA)
  - High Overall Response Rates in AL Amyloidosis and Multiple Myeloma
  - First Outpatient CAR-T: Short CRS duration (median 1 days) starting on day 1

NXC-201 — Key Characteristics

High Transduction Efficiency

(Lower dose may lead to lower toxicity)

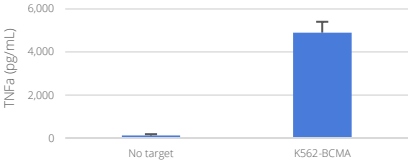
*Carvykti data presented at ASH 2019; Abecma data presented at ASH 2017. CART-ddBCMA source Arcellx. Analysis based on cross-trial comparisons of publicly available data reported in ASH 2017 and 2019 and not a head-to-head clinical trial



Low Tonic Signaling

(Lower off-target toxicity may lead to lower toxicity)

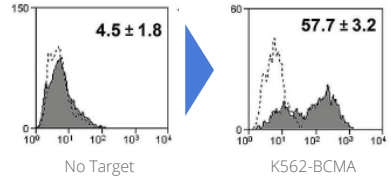
NXC-201 was co-cultured with the indicated target T cells and TNFα (B) and IL-2 (C) concentrations secreted in the culture supernatant were determined by ELISA.



Anti-Exhaustion Capability

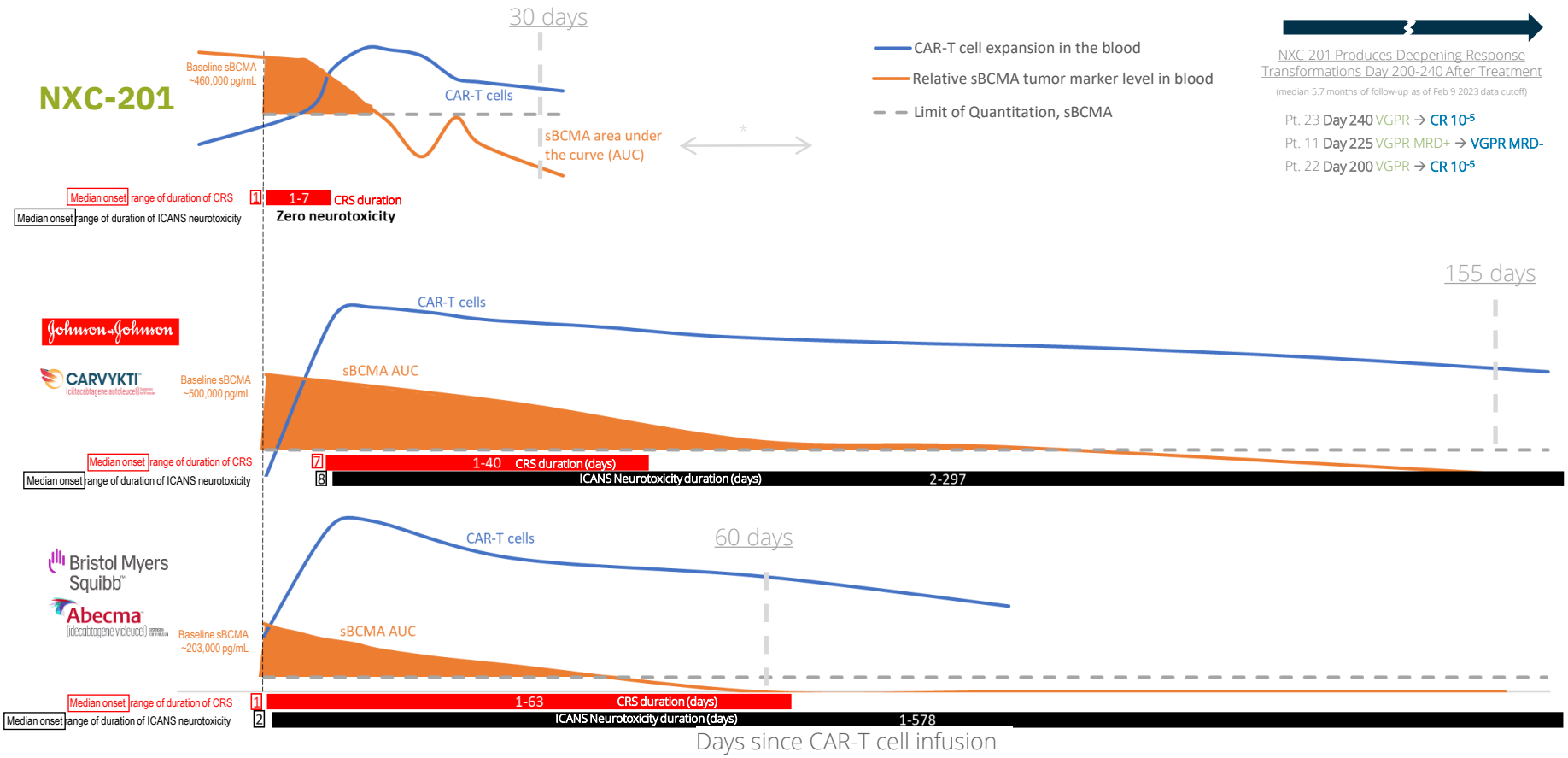
(Increased Persistence may lead to efficacy over an extended period of time)

NXC-201 was co-cultured overnight then analyzed by flow cytometry for the expression of 4-1BB



Source: *Development and manufacturing of novel locally produced anti-BCMA CART cells for the treatment of relapsed/refractory multiple myeloma: phase I clinical results.* Haematologica. 2022 Oct 6. doi: 10.3324/haematol.2022.281628. Epub ahead of print. PMID: 36200421.

N-GENIUS Technology Platform – NXC-201 rapidly eliminates relapsed/refractory multiple myeloma tumors, driving dramatically improved tolerability (1/2)



1

NXC-201: Max 7-day CRS
Others: up to 63 day CRS

2

NXC-201: Low (4%) Neurotoxicity
Others: Up to 578-day neurotoxicity

3

NXC-201: sBCMA reduced in ~30 days
Others: sBCMA reduced in ~60-155 days

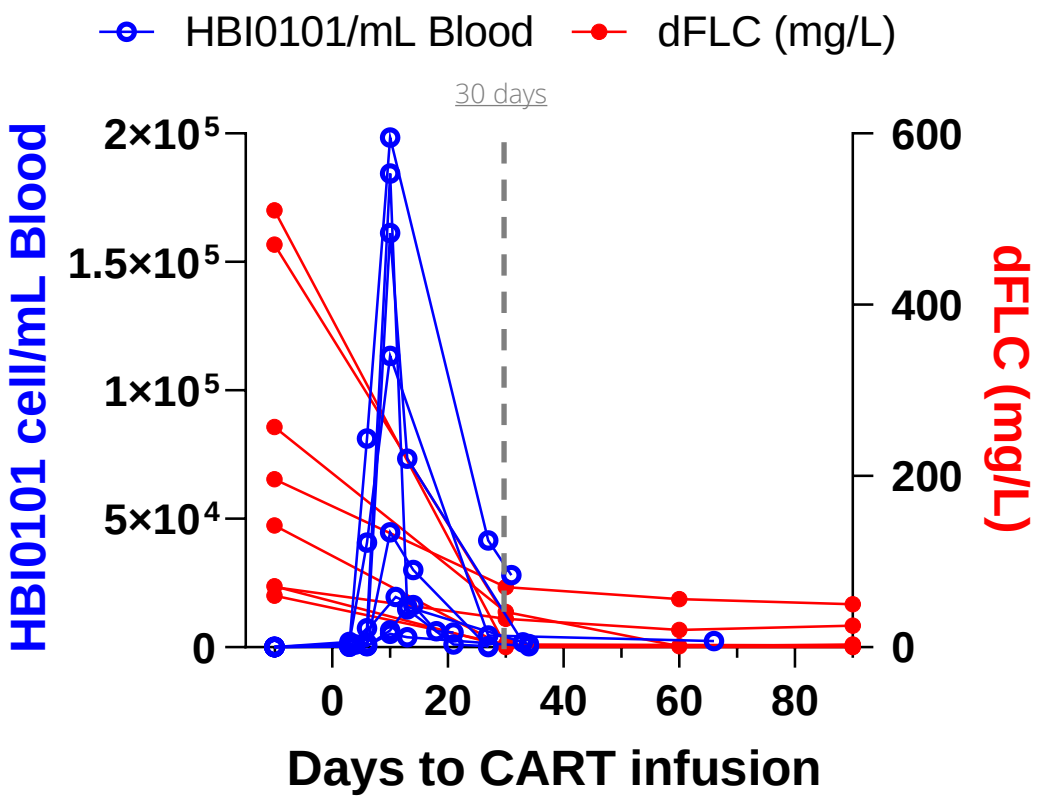
4

NXC-201: CAR-T cells exit body after sBCMA reduced
Others: CAR-T cells remain elevated, causing prolonged neurotoxicity and CRS

*NXC-201: No measurements available beyond 30 days in multiple myeloma as of the Feb 2023 data cutoff (in human data from AL Amyloidosis, NXC-201 clears system in < 30days as seen on the next slide)

Source: FDA labels; company presentations; EMA assessment report; Asherie, N., et al. Haematologica, 2022. Frigault, M., et al. Blood Advances, 2022; Shen, Y, et al. Curr Res Transl Med. 2023; Janssen Science; Figures reflect cross-trial comparison and not results from a head-to head study. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies; Y-axes units (log10) for T-cell expansion: cells/mL blood (NXC-201) and vector transgene copies/µg of genomic DNA (Carvykti, Abecma), for relative sBCMA: 0-200 (NXC-201), ng/mL (Abecma) and pg/mL (Carvykti); Lebel E, et al. Efficacy and Safety of a Locally Produced Novel Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory Multiple Myeloma, International Myeloma Society 20th Annual Meeting. 2023.

N-GENIUS Technology Platform – NXC-201 rapidly eliminates diseased AL Amyloidosis plasma cells and exits within ~ 30 days (2/2)



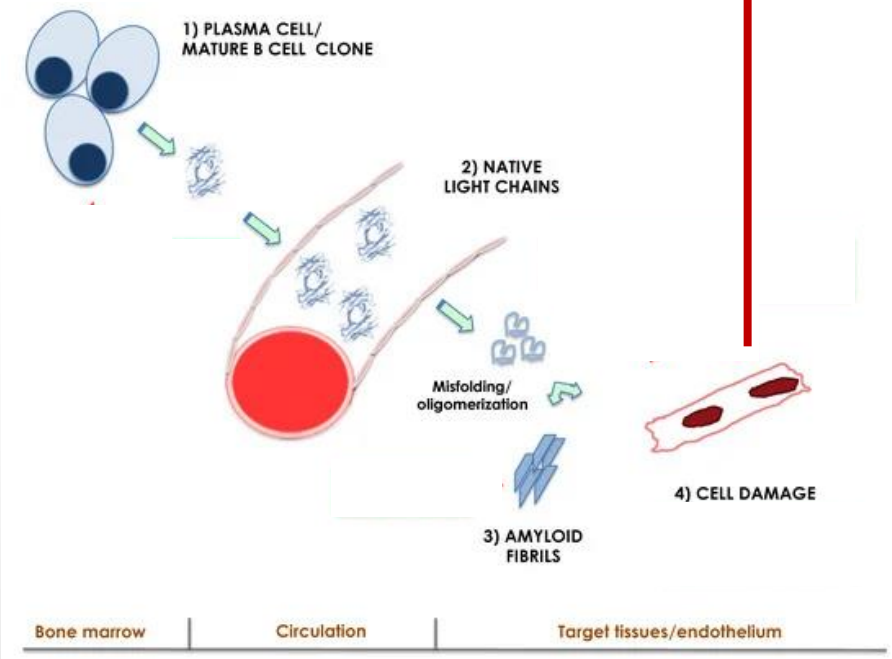
***dFLC (=involved FLC-uninvolved FLC)**

Source: NXC-201 (formerly known as HBI0101). Nexcella ASGCT Presentation Los Angeles 2023. E. Lebel et al. Feasibility of a Novel Academic Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory AL Amyloidosis, International Myeloma Society 20th Annual Meeting. 2023.

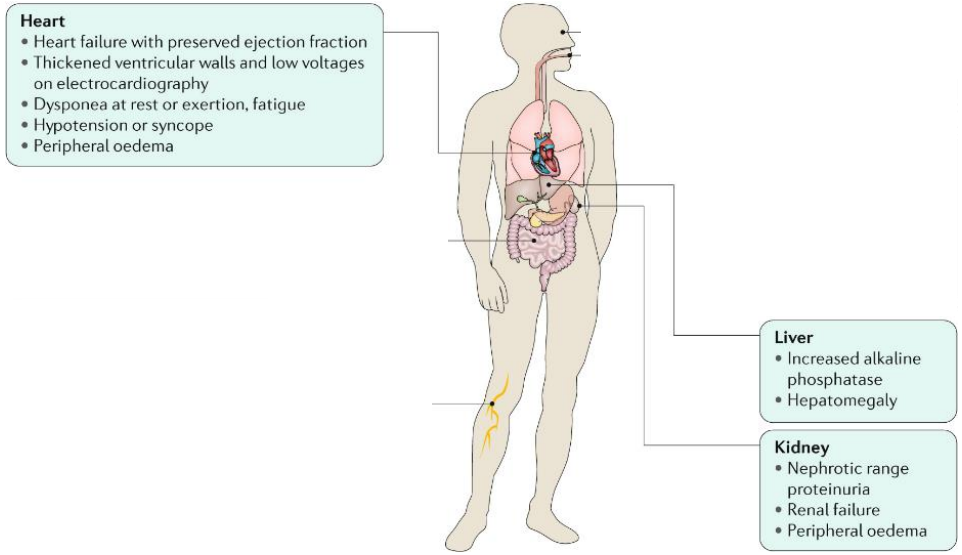
Nature of AL Amyloidosis

Diseased AL Amyloidosis Plasma Cells Express BCMA Target On Cell Surface

AL Amyloidosis Is Caused By Malignant Plasma Calls That Produce Misfolded Amyloid Protein …

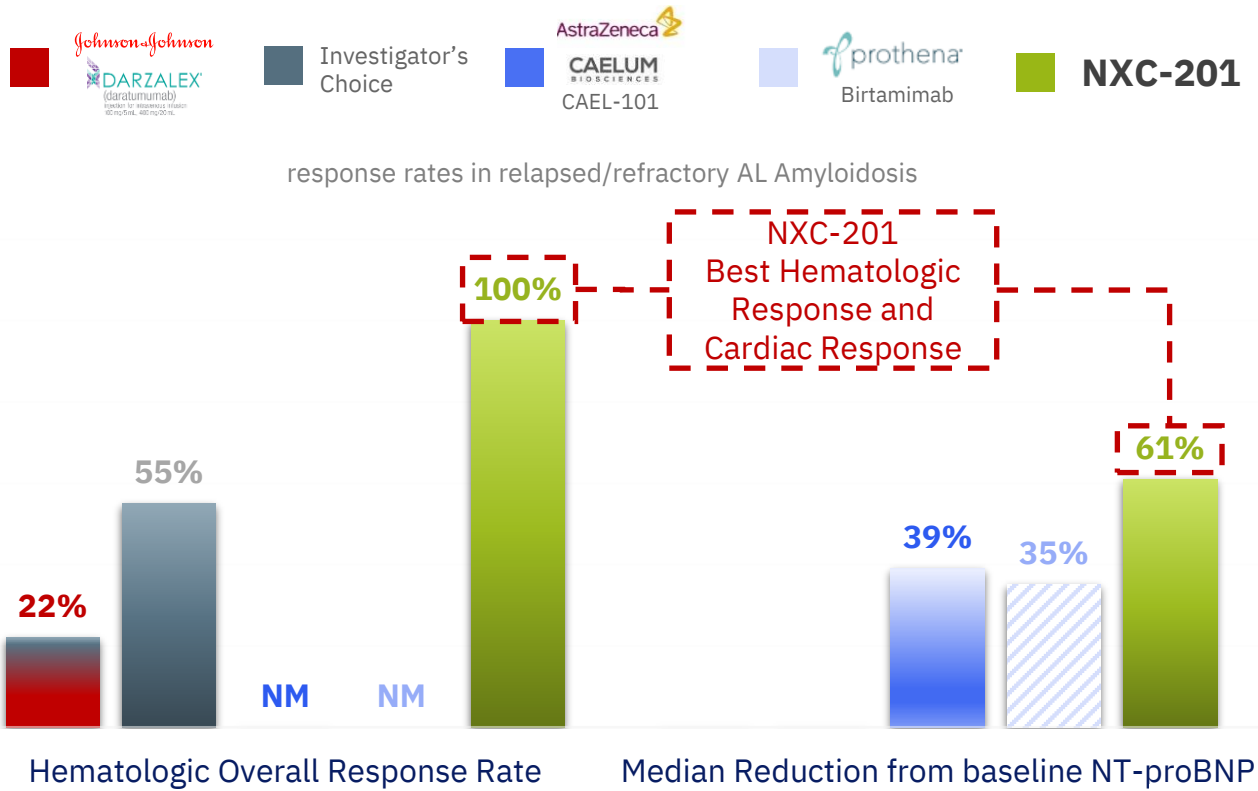


… Which Damages Primary Organs Including: Heart, Liver, Kidney



Source: *Merlini, G., et al. Nat Rev Dis Primers. Oct 2018, Front. Cardiovasc. Med., Dec 2022, Hemato 2022, 3(1), 47-62; https://doi.org/10.3390/hemato3010005*

NXC-201 - First CAR-T in AL Amyloidosis, a $6 billion market by 2025



- NXC-201 Only CAR-T in AL Amyloidosis
- NXC-201 **100% Overall Response Rate** in relapsed/refractory AL amyloidosis (median 6 lines of therapy prior to NXC-201 – all including Darzalex)
- **Cardiac Response** exceeds purpose-designed CAEL-101 and Birtamimab for relapsed/ refractory patients
- **Zero Neurotoxicity of any grade** in AL Amyloidosis

Birtamimab Source: Gertz MA et al. J Clin Oncol. 2016;. CAEL-101 source: Edwards CV, et al. Blood. 2021 Darzalex source: Theodorakakou, et al, 2022 - Outcomes of Patients with AL Amyloidosis after Failure of Daratumumab-Based Therapy - Blood (2022) 140 (Supplement 1): 4275–4276 https://doi.org/10.1182/blood-2022-165403 ., Point-of-care CART manufacture and delivery: Expanding access to CART therapy via local institutions, Hadassah Medical Center experience. Poster Presentation, European Society for Blood and Marrow Transplantation and European Hematology Association 5th European CAR T-cell Meeting. 2023 Feb 9-11. Assayag, M , et al. Stepensky. Point-of-care CART manufacture and delivery for the treatment of multiple myeloma and AL amyloidosis: the experience of Hadassah Medical Center. Poster Presentation, European Society for Blood and Marrow Transplantation 49th Annual Meeting. 2023 Apr 23-26. Asherie N. et al, Oral Presentation. ASGCT, 2023.The Amyloidosis market was $3.6 billion in 2017, expected to reach $6 billion in 2025, according to Grand View Research. Lebel E, et al. Feasibility of a Novel Academic Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory AL Amyloidosis, International Myeloma Society 20th Annual Meeting. 2023. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies. . Figures reflect cross-trial comparison and not results from a head-to head study.

Only CAR-T in BCMA-exposed multiple myeloma, a rapidly growing patient segment (1/2)

	Newly diagnosed	Standard-of-care refractory	BCMA-exposed, a rapidly growing patient segment
Representative Treatment	• Bortezomib, lenalidomide, and dexamethasone (VRd) is standard therapy for newly diagnosed multiple myeloma	• BCMA-targeted antibodies and bispecifics (Tecvayli-J&J; Elrexfio-Pfizer)	• Limited treatment options (no approved treatments)
Results	• ~50% relapse at month 30	• ~50% relapse at month 11-15	• NXC-201: 75% overall response rate; 50% complete response rate

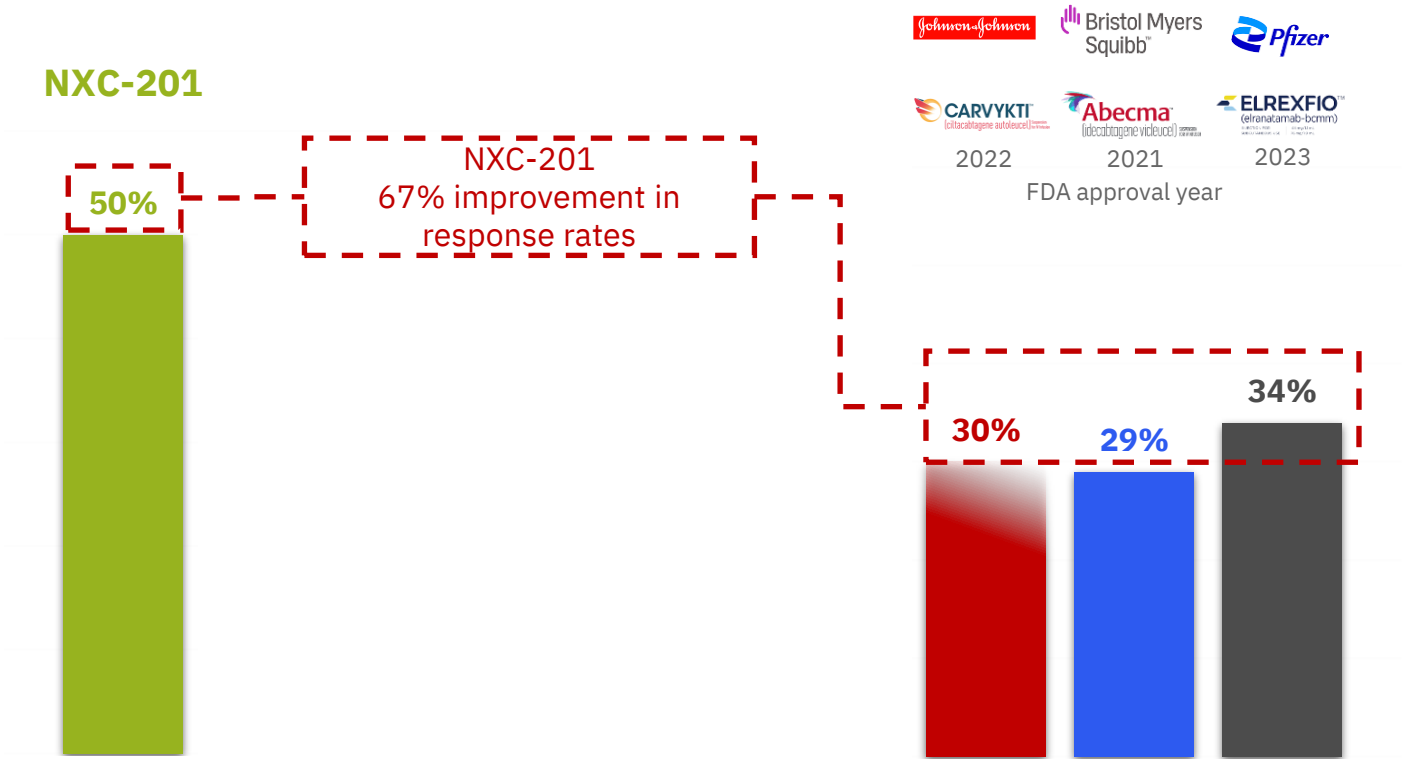
Representative patient number growth

"Recent studies of anti-BCMA BsAbs, … demonstrate that patients may experience disease progression after treatment, leaving them with few other treatment options." Cohen et al, Blood, 2023

Source: https://doi.org/10.1038/s41591-023-02528-9 Nature Medicine, Lancet Oncol. 2020 October ; 21(10): 1317–1330. doi:10.1016/S1470-2045(20)30452-6, ; Teclistamab in Relapsed or Refractory Multiple Myeloma New England Journal of Medicine Aug 11 2022. Figures reflect cross-trial comparison and not results from a head-to head study. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies. Cohen et al 2023 https://doi.org/10.1182/blood.2022015526

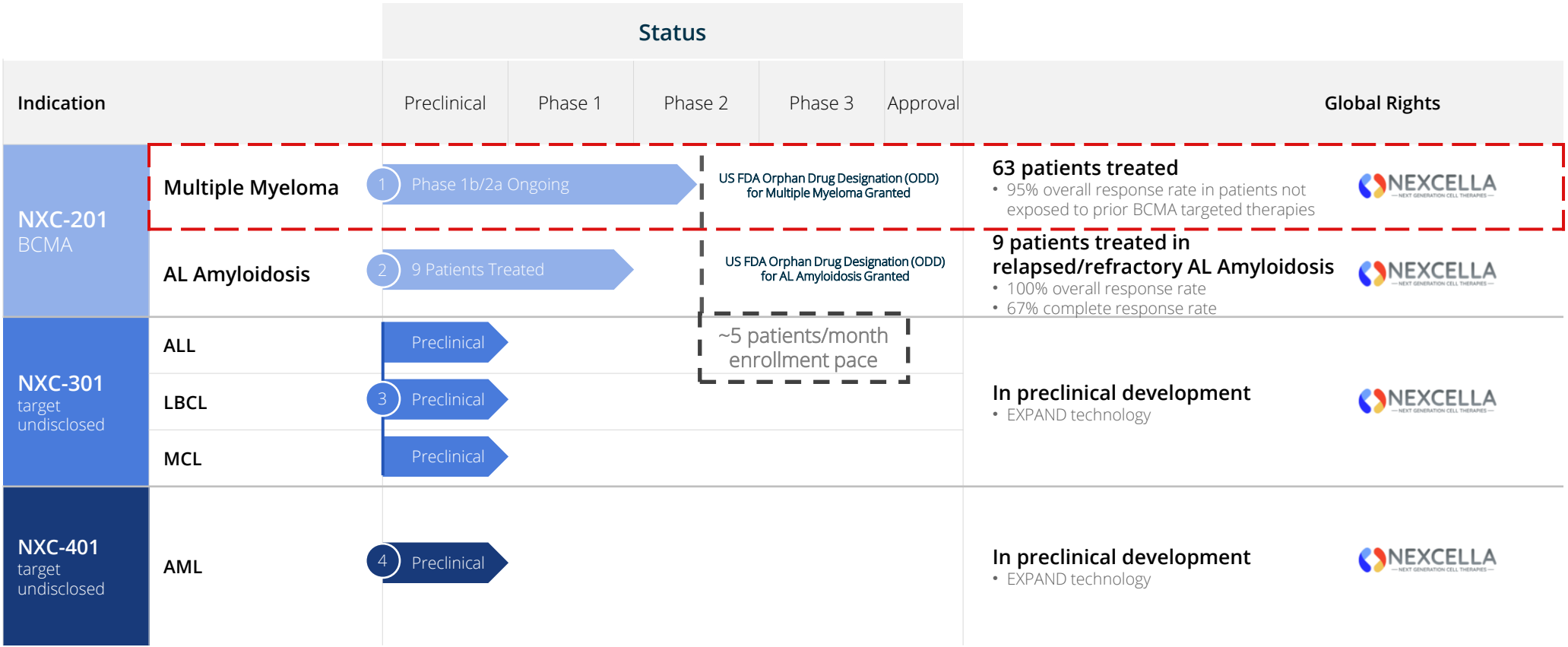
Only CAR-T in BCMA-exposed multiple myeloma, a rapidly growing patient segment (2/2)

Complete Response Rates in BCMA-exposed multiple myeloma



Source: 49th EBMT (NXC-201) presentation, Elrexfio FDA approval label, Cohen et al 2023 https://doi.org/10.1182/blood.2022015526 Blood 2022 https://doi.org/10.1182/blood-2022-164884 . Note: Elrexfio reflects overall response rate (complete response rate not reported on FDA label). Figures reflect cross-trial comparison and not results from a head-to head study. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies.

Robust Pipeline of Cell Therapies in Hematological Disorders



NXC-201 Clinical Development Plan Through FDA BLA Submissions

Expansion Into Additional Sites in the U.S. Planned for Q4 2023/Q1 2024

Target Indication	Trial				Status
Relapsed/refractory AL Amyloidosis NXC-201	**Phase 1b/2a NXC-201** Ongoing: NEXICART-1 (NCT04720313)		**Relapsed/refractory Light Chain (AL) Amyloidosis** **>30 Patients**	→ **Submit to FDA (BLA)**	~25% Patients Dosed
BCMA-exposed multiple myeloma NXC-201	**Phase 1b/2a NXC-201** Ongoing: NEXICART-1 (NCT04720313)	Recommended Phase 2 Dose (RP2D) Already Established at 800 million NXC-201 CAR+T Cells	**Relapsed/refractory Multiple Myeloma** **97 patients** At RP2D	**Clinical Effectiveness** → **Submit to FDA (BLA)**	~50% Patients Dosed
	Phase 2a Open Label, Potentially Pivotal Trial	*Proof-of-concept clinical data to be generated in 2nd line therapy*			

FDA approval precedents include: Abecma/BMS (single arm study 100 patients in efficacy results population, FDA approved 2021); Carvykti/J&J (single arm study 97 patients in efficacy results population, FDA approved 2022); Elrexfio/Pfizer (single arm study 97 patients in efficacy results population, FDA approved 2023)

Outpatient Access To NXC-201 Potentially Increases CAR-T Addressable Market by 10-20x

NEXCELLA
NEXT GENERATION CELL THERAPIES

Today – CAR-T Treatment Options

Today: CAR-T is accessible at only 5% of US hospitals, mostly academic research centers in **major cities**

NXC-201 Treatment Options

Future: NXC-201 potentially accessible at many more US hospitals, academic research centers in **cities** + **regional medical centers and clinics**

Source: Sharma A, et al, Epidemiology and Predictors of 30-Day Readmission in CAR-T Cell Therapy Recipients. Transplant Cell Ther. 2023 Feb;29(2):108.e1-108.e7. doi: 10.1016/j.jtct.2022.11.004. Epub 2022 Nov 9. PMID: 36371048. George Washington University "The Differences Between Academic and Community Medical Centers"

NXC-201 Upcoming Clinical Milestones

- ✓2023 – Ongoing Israeli Phase 1b/2 results with NXC-201
  - ✓Current enrollment pace ~5 patients/month
  - ✓**63 patients** treated with NXC-201 in Multiple Myeloma as of Jul 17, 2023
  - ✓**9 patients** treated with NXC-201 in AL Amyloidosis as of Sep 20, 2023

- ✓2023 – Pre-IND meeting with FDA
- ✓2023 – File IND for U.S. Phase 1b/2 trial for NXC-201
- ✓2023 Q4 – US clinical trial open

- ✓1H25 – Planned Biologics License Applications (BLA) submission for NXC-201

Nexcella Team

Select Leadership

Ilya Rachman, MD, PhD
Nexcella Executive Chairman

- Physician/scientist, prior clinical investigator for GlaxoSmithKline registrational clinical trials (TRELEGY® ELLIPTA®) Pfizer and Eli Lilly post-approval clinical trials

Gabriel Morris, BA
Nexcella President

- >10 years at Goldman Sachs and other global banks leading mergers & acquisitions, entrepreneur, published research

David Marks, MBBS, PhD
Chief Medical Officer

- Director and Lead Clinician at Bristol Allogenic Adult Bone Marrow Transplant Unit and a Professor in Hematology and Stem Cell Transplantation in the Department of Molecular and Cellular Medicine, University of Bristol

Dr. Gerhard Bauer
Head of Cell Therapy Manufacturing

- Former Director of the Good Manufacturing Practice (GMP) laboratory at the University of California at Davis Institute for Regenerative Cures and assistant professor of hematology and oncology

Select Nexcella Board of Directors Members

Henry A. McKinnell, PhD
Former Pfizer, Inc.
Chief Executive Officer

Mary Sue Coleman, Ph.D
Former Johnson & Johnson Board Member

Jeffrey H. Cooper, MBA
Former BioMarin
Chief Financial Officer

Edward J. Borkowski, CPA MBA
Former Mylan Chief Financial Officer

Helen Adams, CPA
Former Prometheus Biosciences Board Member

World Class Nexcella Scientific Advisory Board

Select Nexcella Scientific Advisory Board Members

Heather Landau, MD

- Memorial Sloan Kettering Cancer Center Amyloidosis Program Director
- Bone Marrow Transplant Specialist and Cellular Therapist
- >100 peer-reviewed publications

Memorial Sloan Kettering Cancer Center

Suzanne Lentzsch, MD, PHD

- Director of the Multiple Myeloma and Amyloidosis Program at the College of Physicians and Surgeons of Columbia University and at New York Presbyterian Hospital in New York
- Co-Chairs the National Cancer Institute Myeloma Steering Committee
- Co-founder of Caelum Biosciences (acquired by AstraZeneca)

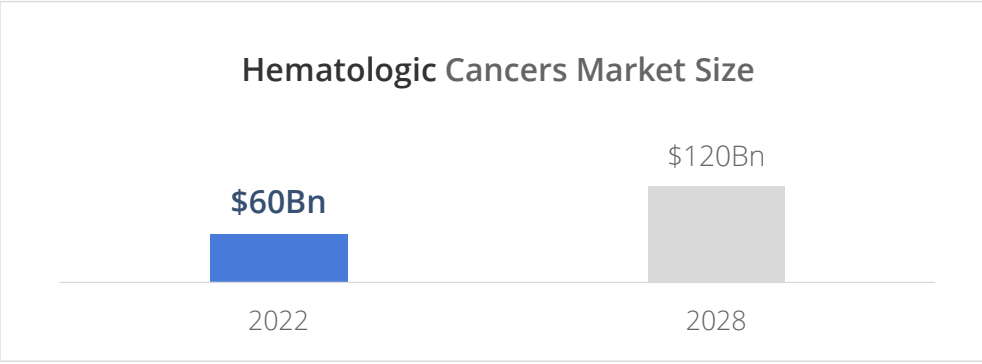
COLUMBIA | COLUMBIA UNIVERSITY HERBERT IRVING COMPREHENSIVE CANCER CENTER

Large Markets

Market Size

Hematologic cancers market opportunity is $60bn today growing to $120bn in 2028.

- **Multiple Myeloma ("MM")** is 3rd most common blood cancer, impacting 176,404 patients annually, with life expectancy of **5 years.**
- **AL Amyloidosis** is developed by 14,982 people annually—with no available treatments as standard of care other than bone marrow transplant (only 20% patients eligible)



Why Now

1. Leveraging market CAR-T experience so far—manufacturing consistency, automation technology , efficacy, safety.
2. Demand for MM CAR-Ts continues to exceed supply - only 2 MM CAR-Ts on the market:

"Patients With Multiple Myeloma May Face CAR T-Cell Shortages"
The ASCO Post Sep 25, 2022

"Gilead lands new cell therapy for Kite in $225M Arcellx deal, providing global scale for future J&J-Legend showdown"
Dec 9, 2022
FIERCE Biotech

Bristol Myers Squibb Abecma (idecabtagene vicleucel) CARVYKTI (ciltacabtagene autoleucel)

3. Still common with approved CAR-Ts: High grade Cytokine Release Syndrome (> grade 3) and neurotoxicity side-effects.
4. Bispecifics/Allogeneic CAR-Ts still work in progress.

	NXC-201 800 x 10^6 CAR+T cells	Allogeneic BCMA-CAR-T	BCMA bispecific engagers
Best ORR	**95%**	71%	75%
CR/sCR	**61%**	25%	43%

Sources: Multiple Myeloma life expectancy source - Arcellx July 2022 investor presentation (NADSAQ:ACLX). Multiple myeloma annual incidence source: GLOBOCAN 2020. Hematologic cancers market size source: reportsanddata.com. AL Amyloidosis annual incidence source: Global epidemiology of amyloid light-chain amyloidosis https://doi.org/10.1186/s13023-022-02414-6. AL Amyloydosis transplant eligibility source: Bone Marrow Transplant. 2013 Oct;48(10):1302-7. doi: 10.1038/bmt.2013.53 Note: Allo BCMA CAR- T scope includes ALLO-715 (Allogene); CYAD-211 (Celyad), BCMA Bispecific Engagers scope includes Teclistamab (Janssen); Elranatamab (Pfizer); ABBV-383 (AbbVie); REGN5458 (Regeneron); CC-93269 (Bristol Myers);HPN217 (Harpoon) as of March 1 2022. Lebel E, et al. Feasibility of a Novel Academic Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory AL Amyloidosis, International Myeloma Society 20th Annual Meeting. 2023.

N-GENIUS Platform: Robust Pipeline of Clinical & Preclinical CAR-Ts

N-GENIUS PLATFORM

3 Key Elements

Purpose-Built Cell Therapy Evidence Capture Engine + Relational Database

Relating Nexcella internal data to external to accelerate therapy design, manufacture, and preclinical

Proprietary EXPAND technology

Applied to multiple cell therapy indications, already utilized to create NXC-201, to potentially increase efficacy and tolerability

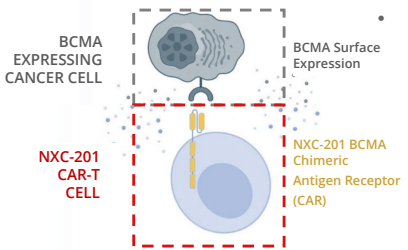
Atomized, Novel Binding Scaffold Generation Engine

Allows us to make the correct binding for every molecule

Source: *Development and manufacturing of novel locally produced anti-BCMA CART cells for the treatment of relapsed/refractory multiple myeloma: phase I clinical results.* Haematologica. 2022 Oct 6. doi: 10.3324/haematol.2022.281628. Epub ahead of print. PMID: 36200421.

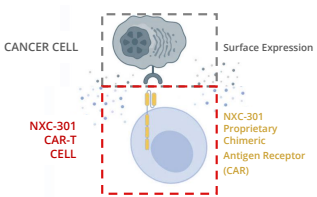
Produced NXC-201, NXC-301, NXC-401

NXC-201 CAR-T CELL



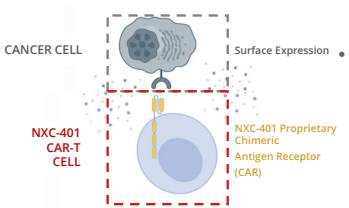
- NXC-201 is a next-generation chimeric antigen receptor (CAR) T-cell (CAR-T) targeting B-cell maturation antigen (BCMA)
  - High Complete Response Rates in AL Amyloidosis and Multiple Myeloma
  - First Outpatient CAR-T: Short CRS duration (median 1 days) starting on day 1

NXC-301 CAR-T CELL



- NXC-301 is a next-generation CAR-T with a proprietary target. Indications:
  - Acute lymphocytic leukemia (ALL)
  - Large B-Cell Lymphoma (LBCL)
  - Mantle cell lymphoma (MCL)

NXC-401 CAR-T CELL



- NXC-401 is a next-generation CAR-T with a proprietary target. Indications:
  - Acute Myeloid Leukemia (AML)

Nexcella Investment Highlights

1	**First CAR-T, NXC-201, in AL Amyloidosis**	• 100% overall response rate in relapsed/refractory AL amyloidosis ($3bn market) • No drugs approved in relapsed/refractory AL amyloidosis today
2	**Expanding into Autoimmune indications**	• NXC-201 expanding into Systemic Lupus Erythematosus, Vasculitis, Dermatomyositis, Myasthenia Gravis, Multiple Sclerosis, Scleroderma - a $30 bn combined annual market size
3	**First "single-day CRS" CAR-T in multiple myeloma**	• NXC-201: first "single-day CRS" CAR-T (median day 1 onset) enables patients to return home 80% faster • 95% overall response rate in relapsed/refractory multiple myeloma ($18bn market)
4	**NXC-201 n=72 patients across 11 peer-reviewed publications**	• 2 Presentations (1 Oral) at 2023 *American Society of Hematology (ASH) 65th Meeting* • Mature dataset: *American Society of Cell and Gene Therapy, Haematologica,* other publications • Precedents for open-label, single-arm FDA approvals at ~100 patient dataset – Carvykti, Abecma
5	**First CAR-T Overcoming Neurotoxicity**	• ~10-20x potential increase in CAR-T addressable market through wider hospital availability • ~5x potential hospital per-bed revenue increase by reducing CAR-T hospitalization time • Overcoming neurotoxicity allows expansion into: AL Amyloidosis, autoimmune, others

NEXCELLA

NEXT GENERATION CELL THERAPIES

Next Generation Cell Therapies

Targeting Oncology & Other Diseases

Appendix

NXC-201 Clinical Results Demonstrate Potential for Best-in-Class Efficacy & Safety in AL (light chain) Amyloidosis

Relapsed/Refractory Light chain (AL) Amyloidosis

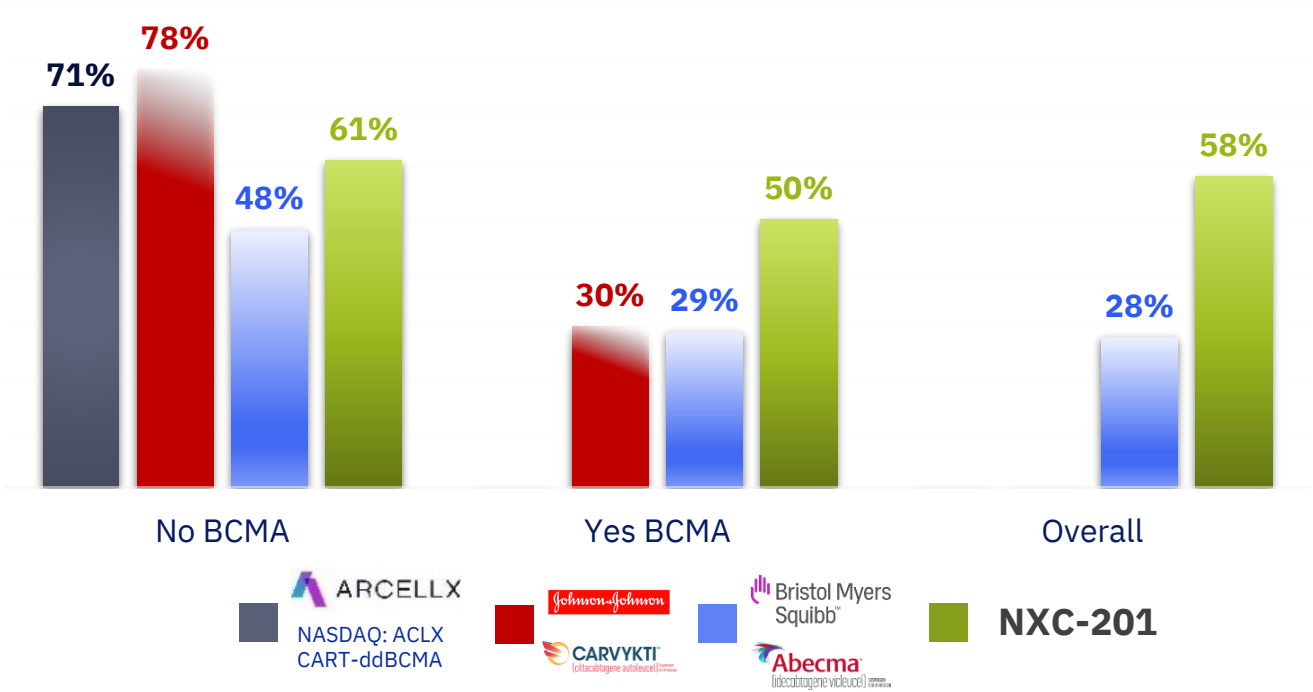
	NXC-201	Landscape			
	NXC-201 Monotherapy One-Time Treatment	Darzalex Combination (combined with cyclophosphamide, bortezomib, and/or dexamethasone) Weekly treatments	Investigator's Choice (Darzalex combination with bortezomib or IMiD, venetoclax, belantamab mafodotin, bortezomb-based, lenalidomide-based, ptpomalidomide, ixazomib or alkylating agent)	CAEL-101 Weekly treatments	Birtamimab Birtamimab Combined with SOC CyBorD Weekly treatments
Patient #s	n=9	n=9	n=31	n=10 (renal) n=24 (cardiac)	N = 14 (cardiac) N = 15 (renal)
Hematologic Overall Response Rate	100%	22%	55%	-	-
Hematologic Complete Response Rate	67%	0%	?	-	-
Hematologic CR + VGPR	89%	22%	45%	-	-
Cardiac response – (NT-proBNP median reduction)	61%			39%	35%
Renal response (%)	50%			20%	60%
Median prior lines of therapy	6	1	1	2	2
% pretreated with CD38-targeted treatment (Darzalex/other)	100%	100%	100%	?	0%
Source	*29th ASGCT 2023, 49th EBMT Meeting 2023, 5th European CAR-T Meeting, Clinical Cancer Research 20th IMS Meeting 2023*	Theodorakakou, et al, Blood 2022	Theodorakakou, et al, Blood 2022	Blood 2021	Gertz, et al. JCO 2016

14,982 patient annual incidence

Birtamimab Source: Gertz MA et al. First-in-Human Phase I/II Study of NEOD001 in Patients With Light Chain Amyloidosis and Persistent Organ Dysfunction. J Clin Oncol. 2016 Apr 1;34(10):1097-103. doi: 10.1200/JCO.2015.63.6530. Epub 2016 Feb 8. PMID: 26858336; PMCID: PMC5470113. (Birtamimab development was paused + restarted). CAEL-101 source: Edwards CV, et al. Phase 1a/b study of monoclonal antibody CAEL-101 (11-1F4) in patients with AL amyloidosis. Blood. 2021 Dec 23;138(25):2632-2641. doi: 10.1182/blood.2020009039. PMID: 34521113; PMCID: PMC8703360.. Darzalex source: Theodorakakou, et al, 2022 - Outcomes of Patients with AL Amyloidosis after Failure of Daratumumab-Based Therapy - Blood (2022) 140 (Supplement 1): 4275–4276 https://doi.org/10.1182/blood-2022-165403 ., Point-of-care CART manufacture and delivery: Expanding access to CART therapy via local institutions, Hadassah Medical Center experience. Poster Presentation, European Society for Blood and Marrow Transplantation and European Hematology Association 5th European CAR T-cell Meeting, 2023 Feb 9-11. Assayag M , et al. Point-of-care CART manufacture and delivery for the treatment of multiple myeloma and AL amyloidosis: the experience of Hadassah Medical Center. Poster Presentation, European Society for Blood and Marrow Transplantation 49th Annual Meeting, 2023 Apr 23-26. Asherie N. et al, BCMA-Targeted CART (HBI0101), a Safe and Efficacious Novel Modality of Treatment for Light Chain Amyloidosis (AL) Patients. Oral Presentation. ASGCT – American Society of Gene & Cell Therapy 29th Annual Meeting, May 19, 2023. Figures reflect cross-trial comparison and not results from a head-to head study. Lebel E,et al. Feasibility of a Novel Academic Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory AL Amyloidosis, International Myeloma Society 20th Annual Meeting. 2023. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies.

NXC-201 Clinical Results Demonstrate Potential for Best-in-Class Efficacy & Safety in Multiple Myeloma, a $29 billion market by 2027

Complete Response Rate in Relapsed/Refractory Multiple Myeloma



- NXC-201 Class leading efficacy in multiple myeloma
- NXC-201: **low (4%) neurotoxicity grade 1-2** (9-23% for others)
- **~80% reduction in hospitalization cost** - 3 day hospital stay for NXC-201 (14 days for others)

"Yes/No BCMA" refers to prior treatment with BCMA-targeted therapies. "Overall" includes a mix of Yes/No

Source: *Development and manufacturing of novel locally produced anti-BCMA CART cells for the treatment of relapsed/refractory multiple myeloma: phase I clinical results.* Haematologica. 2022 Oct 6. doi: 10.3324/haematol.2022.281628. Epub ahead of print. PMID: 36200421., Feasibility of a Novel Academic BCMA-CART (HBI0101) for the Treatment of Relapsed and Refractory AL Amyloidosis. Clin Cancer Res. 2022 Dec 1;28(23):5156-5166. doi: 10.1158/1078-0432.CCR-22-0637. PMID: 36107221., *Point-of-care CART manufacture and delivery: zExpanding access to CART therapy via local institutions, Hadassah Medical Center experience.* Poster Presentation, European Society for Blood and Marrow Transplantation and European Hematology Association 5th European CAR T-cell Meeting. 2023 Feb 9-11. Assayag M , et al. Stepensky. Point-of-care CART manufacture and delivery for the treatment of multiple myeloma and AL amyloidosis: the experience of Hadassah Medical Center. Poster Presentation, European Society for Blood and Marrow Transplantation 49th Annual Meeting. 2023 Apr 23-26. Blood 2022 https://doi.org/10.1182/blood-2022-164884 . Cohen et al 2023 https://doi.org/10.1182/blood.2022015526 . E. Lebel et al. Efficacy and Safety of a Locally Produced Novel Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory Multiple Myeloma, International Myeloma Society 20th Annual Meeting. 2023. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies. The $13.9 billion Multiple Myeloma market in 2017 is expected to reach $28.7 billion in 2027 according to Wilcock, et al. Nature Reviews. Figures reflect cross-trial comparison and not results from a head-to head study.

NXC-201 Clinical Results Demonstrate Potential for Best-in-Class Efficacy & Safety in Multiple Myeloma

		No Prior BCMA-Targeted Therapy				Yes Prior BCMA-Targeted Therapy				Overall - Mixed (BCMA Pretreated + not)	
		NEXCELLA planned RP2D 800 million CAR+T cells NXC-201 Monotherapy	ARCELLX (NASDAQ: ACLX) CART-ddBCMA 100 + 300M cells	Johnson & Johnson CARVYKTI	Bristol Myers Squibb Abecma	NEXCELLA planned RP2D 800 million CAR+T cells NXC-201 Monotherapy	Investigator's choice	Johnson & Johnson CARVYKTI	Bristol Myers Squibb Abecma	NEXCELLA includes all patients (with and without Prior BCMA-Targeted Therapy) treated at 800 million CAR+T cells NXC-201 Monotherapy	Bristol Myers Squibb Abecma
Patients	Patient #s	n=38	n=31	n=97	n=144	n=12	N=275	n=20	n=49	n=50	n=100
	Extramedullary disease (EMD)	24%	39%	13%	50%	24%	?	25%	50%	24%	36%
	High risk cytogenetics	62%	-	24%	36%	62%	29%	15%	36%	62%	37%
Clinical Data	Overall Response Rate	95%	100%	98%	88%	75%	31%	60%	74%	90%	72%
	Complete Response Rate	61%	71%	78%	48%	50%	2%	30%	29%	58%	28%
	ICANs Neurotoxcity (all grades)	-	23%	23% (2 deaths)	8.5%	0%	N/A	20%	8.5%	4%	28%
	CRS, grade >= 3	-	3%	5% (1 death)	?	-	N/A	0%	2%	14%	9%[2] (1 death)
	Potential hospital stay length based on available data	~3 days	~14 days	~14 days	~14 days	~3 days	N/A	~14 days	~14 days	~3 days	14 days
	Source	*49th EBMT Meeting 2023 20th IMS Meeting 2023*	2022 NASDAQ IPO S-1	FDA Approval Label	Ferreri et al, Blood 2022	*49th EBMT Meeting 2023*	Gandhi, et al 2019	Blood 2023 – Cohen et al	Ferreri et al, Blood 2022	*20th IMS Meeting 2023*	FDA Approval Label

176,404 (35,730 US) patient annual incidence

[1] All grades of neurotoxicity [2] The safety data described in this section reflect the exposure to ABECMA in the KarMMa study, in which 127 patients with relapsed/refractory multiple myeloma received ABECMA. [3a,3b]For of the first 20, 42 patients treated with NXC-201 at all doses, respectively Source: *Development and manufacturing of novel locally produced anti-BCMA CART cells for the treatment of relapsed/refractory multiple myeloma: phase I clinical results.* Haematologica. 2022 Oct 6. doi: 10.3324/haematol.2022.281628. Epub ahead of print. PMID: 36200421., Feasibility of a Novel Academic BCMA-CART (HBI0101) for the Treatment of Relapsed and Refractory AL Amyloidosis. Clin Cancer Res. 2022 Dec 1;28(23):5156-5166. doi: 10.1158/1078-0432.CCR-22-0637. PMID: 36107221., *Point-of-care CART manufacture and delivery: zExpanding access to CART therapy via local institutions, Hadassah Medical Center experience.* Poster Presentation, European Society for Blood and Marrow Transplantation and European Hematology Association 5th European CAR T-cell Meeting, 2023 Feb 9-11. Assayag M, et al. Point-of-care CART manufacture and delivery for the treatment of multiple myeloma and AL amyloidosis: the experience of Hadassah Medical Center. Poster Presentation, European Society for Blood and Marrow Transplantation 49th Annual Meeting, 2023 Apr 23-26. Blood 2022 https://doi.org/10.1182/blood-2022-164884 . Cohen et al 2023 https://doi.org/10.1182/blood.2022015526 . Lebel E, et al. Efficacy and Safety of a Locally Produced Novel Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory Multiple Myeloma, International Myeloma Society 20th Annual Meeting, 2023. Figures reflect cross-trial comparison and not results from a head-to head study. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies.

NXC-201 Clinical Highlights: 4% Neurotoxicity Across 50 Patients; Outpatient CAR-T Potential

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Relapsed/refractory Multiple Myeloma

- 95% Overall Response Rate in Heavily Pretreated Multiple Myeloma Patients 61% CR/sCR rate
- Low (4%) Neurotoxicity observed
- No Grade 4 Cytokine Release Syndrome (CRS) Observed at planned RP2D 800 million CAR+T cells
- Outpatient CAR-T Potential
- Published in *Haemotologica* 2022 + 5th European CAR-T Cell Meeting + EBMT 49th Annual meeting + 20th IMS
- Data in 63 patients so far

Bristol Myers Squibb Revlimid	Johnson & Johnson DARZALEX	Bristol Myers Squibb Pomalyst	Bristol Myers Squibb Abecma	Johnson & Johnson CARVYKTI
$11Bn Annualized Sales	**$8Bn** Annual Sales	**$2.5Bn** Annualized Sales	**FDA Approved** Anti-BCMA Autologous CAR-T	**FDA Approved** Anti-BCMA Autologous CAR-T

176,404 patient annual incidence

Relapsed/refractory Light chain (AL) Amyloidosis

- 100% Overall Response + 67% Complete Response in Relapsed/Refractory Amyloidosis Patients, 1 responder with 16+ months PFS
- Duration of Response Not Yet Reached at a median follow-up of 7.3 months
- 2-stage improvement in NYHA stage was observed with NXC-201
- Median 61% reduction in NT-proBNP from baseline
- Outpatient CAR-T Potential
- Published in *Clinical Cancer Research* 2022 + 5th European CAR-T Cell Meeting + 49th EBMT meeting + 29th ASCGT 2023 (Los Angeles) + 20th IMS 2023
- Data in 9 patients so far

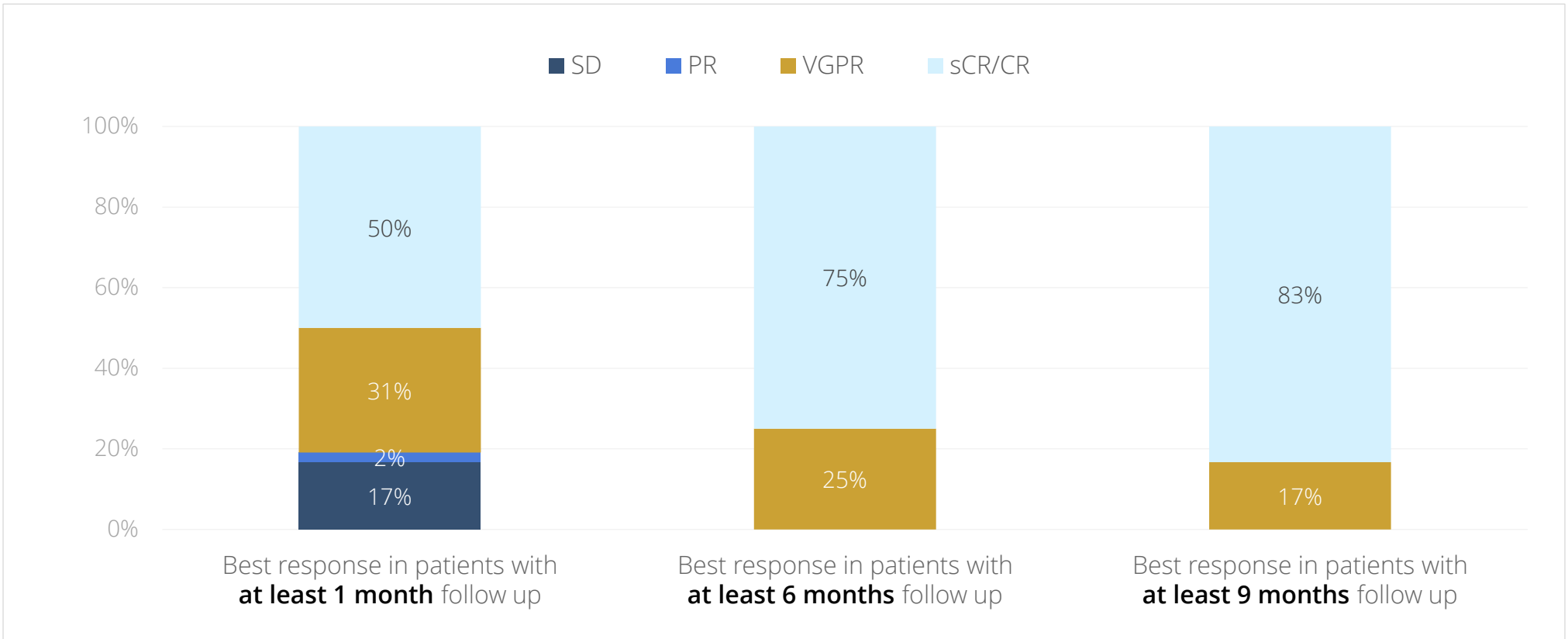
Johnson & Johnson DARZALEX

$8Bn Annual Sales

14,982 patient annual incidence

Source: BMS First Quarter 2022 financial results; "Genmab Improves Its 2022 Financial Guidance' November 3 2022, Celgene Second Quarter 2019 Operating and Financial Results., Development and manufacturing of novel locally produced anti-BCMA CART cells for the treatment of relapsed/refractory multiple myeloma: phase I clinical results. Haematologica. 2022 Oct 6. doi: 10.3324/haematol.2022.281628. Epub of print. PMID: 36200421., Feasibility of a Novel Academic BCMA-CART (HBI0101) for the Treatment of Relapsed and Refractory AL Amyloidosis. Clin Cancer Res. 2022 Dec 1;28(23):5156-5166. doi: 10.1158/1078-0432.CCR-22-0637. PMID: 36107221., Point-of-care CART manufacture and delivery: Expanding access to CART therapy via local institutions, Hadassah Medical Center experience. Poster Presentation, Europea Society for Blood and Marrow Transplantation and European Hematology Association 5th European CAR T-cell Meeting. 2023 Feb 9-11. Assayag M, et al. Point-of-care CART manufacture and delivery for the treatment of multiple myeloma and AL amyloidosis: the experience of Hadassah Medical Center. Poster Presentation, European Society for Blood and Marrow Transplantation 49th Annual Meeting. 2023 Apr 23-2 Lebel E, et al. Feasibility of a Novel Academic Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory AL Amyloidosis, International Myeloma Society 20th Annual Meeting. 202. Lebel E, et al. Efficacy and Safety of a Locally Produced Novel Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory Multiple Myeloma, International Myeloma Society 20th Annual Meeting. 2023.

Proportion of NXC-201 Patients with sCR/CR Increased Over Time in Relapsed/Refractory Multiple Myeloma



The patients included in this analysis are determined by those who have had their 1- (n=42), 6 - (n=16), 9 - (n=6) month follow-up visits, respectively, per protocol. Source: Point-of-care CART manufacture and delivery: Expanding access to CART therapy via local institutions, Hadassah Medical Center experience. Poster Presentation, European Society for Blood and Marrow Transplantation and European Hematology Association 5th European CAR T-cell Meeting. 2023 Feb 9-11., *Development and manufacturing of novel locally produced anti-BCMA CART cells for the treatment of relapsed/refractory multiple myeloma: phase I clinical results.* Haematologica. 2022 Oct 6. doi: 10.3324/haematol.2022.281628. Epub ahead of print. PMID: 36200421., Note: SD = Stable Disease; PR = Partial Response; VGPR = Very Good Partial Response; sCR = stringent (10^{-5}) Complete Response; CR = Complete Response

Preconditioning Regimens

	NXC-201	Abecma	Carvykti	CART-ddBCMA
Lymphodepletion regimen	250 mg cyclophosphamide/m^2 + 25 mg fludarabine/m^2	300 mg cyclophosphamide/m^2 + 30 mg fludarabine/m^2	300 mg cyclophosphamide/m^2 + 30 mg fludarabine/m^2	300 mg cyclophosphamide/m^2 + 30 mg fludarabine/m^2
Frequency	QD, days -5, -4, -3	QD, days -5, -4, -3	QD, days -5, -4, -3	QD, days -5, -4, -3
Infusion (Day 0) from start of lymphodepletion (days)	5	5	5-7	5

Source: Berdeja JG, et al. Lancet. 2021; Frigault MJ, et al. Blood Adv. 2023; Munshi NC, et al. N Engl J Med. 2021; Asherie N, et al. Haematologica. 2023

Relapsed/Refractory Multiple Myeloma - Key Inclusion Criteria

	NXC-201 (Ex-US Ph1/2 NCT04720313)	Abecma (pivotal NCT03361748)	Carvykti (pivotal NCT03548207)	CART-ddBCMA (pivotal NCT05396885)
Prior lines of therapy	≥3 different prior lines of therapy including proteasome inhibitor, immunomodulatory therapy and ≥1 antibody therapy, refractory/responsive to the last line of therapy	≥3 different prior lines of therapy including a proteasome inhibitor, an immunomodulatory agent and an anti-CD38 antibody, refractory to the last treatment regimen	≥3 different prior lines of therapy including a proteasome inhibitor, an immunomodulatory agent and an anti-CD38 antibody, refractory to the last treatment regimen, refractory or non-responsive to their most recent line of therapy	≥3 different prior lines of therapy including a proteasome inhibitor, an immunomodulatory agent and an anti-CD38 antibody, refractory to the last treatment regimen
Toxicity recovery	Recovery to ≤Grade 2 or baseline of any non-hematologic toxicities due to prior treatments, excluding alopecia and Grade 3 neuropathy	Recovery to Grade 1 or baseline of any non-hematologic toxicities due to prior treatments	-	Resolution of adverse events (AEs) from any prior systemic anticancer therapy, radiotherapy, or surgery to Grade 1 or baseline
ECOG	0-2	0-1	0-1	0-1
Measurable disease	• Serum M-protein greater or equal to 0.5 g/dL • Urine M-protein greater or equal to 200 mg/24 h • Serum free light chain (FLC) assay: involved FLC level greater or equal to 5 mg/dL (50 mg/L) provided serum FLC ratio is abnormal	• Serum M-protein greater or equal to 1.0 g/dL • Urine M-protein greater or equal to 200 mg/24 h • Serum free light chain (FLC) assay: involved FLC level greater or equal to 10 mg/dL (100 mg/L) provided serum FLC ratio is abnormal	• Serum monoclonal paraprotein (M-protein) level more than or equal to (>=) 1.0 gram per deciliter(g/dL) • Urine M-protein level >=200 milligram per 24 hours (mg/24hr) • Light chain multiple myeloma without measurable disease in the serum or the urine: Serum immunoglobulin free light chain 10 mg/dL and abnormal serum immunoglobulin kappa lambda free light chain ratio	• Serum M-protein ≥1.0 g/dL • Urine M-protein ≥200 mg/24 hours • Involved serum free light chain ≥10 mg/dL with abnormal κ/λ ratio (i.e., >4:1 or <1:2)

Source: Clinicaltrials.gov; Asherie N, et al. Haematologica. 2023

Relapsed/Refractory Multiple Myeloma - Key Exclusion Criteria

	NXC-201 (Ex-US Ph1/2 NCT04720313)	Abecma (pivotal NCT03361748)	Carvykti (pivotal NCT03548207)	CART-ddBCMA (pivotal NCT05396885)
Prior BCMA therapy	No exclusion	BCMA targeted therapy	Have received any therapy that is targeted to B-cell maturation antigen (BCMA)	Prior B-cell maturation antigen (BCMA) directed therapy
Prior cell therapy	Investigational cellular therapies within 8 weeks prior to the start of lymphodepletion	Investigational cellular therapy for cancer	Have received prior treatment with chimeric antigen receptor T (CAR-T) therapy directed at any target	Prior treatment with any gene therapy or gene-modified cellular immune-therapy

Source: Clinicaltrials.gov; Asherie N, et al. Haematologica. 2023

BCMA Bispecific Antibodies (Tecvayli, Elrexfio) Are Currently Being Investigated As An Outpatient Therapy

01 Outpatient Tecvayli "safe and feasible"

- Asya Nina Varshavsky-Yanovsky, MD, PhD
- Department of Bone Marrow Transplant and Cellular Therapies
- Fox Chase–Temple University Hospital

"We have treated over 20 patients with our outpatient [Teclistamab dosing] program so far [in r/r MM] ... in conclusion outpatient Teclistamab, step up administration model with close monitoring is safe and feasible in heavily pretreated patients with rrMM allows significant reduction of patient stay which results in healthcare savings and an improvement of patient experience"

Aug 4, 2023

EHA2023 JUNE 8 - 16 / FRANKFURT & VIRTUAL

02 Administration of Tecvayli will "not be the same as in MajesTEC-1"

- Jeffrey Matous, MD
- Colorado Blood Cancer Institute
- Plasma Cell Diseases Group

"teclistamab has been approved based on the MajesTEC-1 study, where it was given a certain way. I'm convinced that's not how we'll be using teclistamab in the future"

May 24, 2023 AJMC

- Yan Ji, MD
- HealthPartners Cancer Center at Regions Hospital

"We learned how to give patients daratumumab [Darzalex]. Initially, there were a lot of infusion reactions. Now everybody feels very comfortable and we give it to patients all the time"

May 10, 2023 Targeted Oncology

03 Clinical trials underway to test outpatient BCMA BsAbs

Trial #	NCT05972135	NCT06015542
Drug	Tecvayli (Teclistamab)	Elrexfio (Elranatamab)
Phase	2	2
# pts	50	20
Start date	9/30/2023	1/1/2024
LoT	Received 4 or more prior therapies	≥1 proteasome inhibitor, IMID and anti CD-38 mAb
Primary endpoint	Incidence of CRS	Safety

Adverse Event Profile - Market

	ARCELLX 100 x10^6 cells	ARCELLX 300x10^6 cells
	n=25	n=6
	Grade 3-4	Grade 3-4
Adverse Events		
Cytokine Release Syndrome (CRS)	0 (0%)	**1 (17%)**
Day of median onset (min-max)	2 (1-8 days)	2 (1-2 days)
Days of median duration (min-max)	8 (3-13 days)	5 (3-10 days)
Immune cell associated Neurotoxicity (ICANS)	**6 (23%)**	**1 (17%)**
Day of median onset (min-max)	**4.5 (3-6 days)**	**7 days**
Day of median duration (min-max)	**7.5 (4-11 days)**	**23 days**
Toxicity Management		
Tocilizumab	19 (76%)	5 (83%)
Dexamethasone	13 (52%)	2 (33%)

Source: Arcellx July 2022 Corporate Presentation

Adverse Event Profile – NXC-201

	NXC-201 150x10^6 CAR+T cells	NXC-201 450x10^6 CAR+T cells	NXC-201 800x10^6 CAR+T cells	
	n=6	n=7	n=50	
	Grade 3	Grade 3	Grade 1-2	Grade 3
Adverse Events				
Cytokine Release Syndrome (CRS)	0 (0%)	0 (0%)	41 (82%)	7 (14%)
Day of median onset (min-max)	-	-	-	-
Days of median duration (min-max)	-	-	1	2
Immune cell associated Neurotoxicity (ICANS)	0 (0%)	0 (0%)	2 (4%)	0 (0%)
Day of median onset (min-max)	-	-	-	-
Day of median duration (min-max)	-	-	-	-
Toxicity Management	of n=6	of n=7	of n=50	
Tocilizumab	1 (17%)	4 (57%)	40/48 (83%)	
Dexamethasone	0 (0%)	0 (0%)	8/48 (17%)	

Note. No Grade 4 CRS with NXC-201. Source: *Development and manufacturing of novel locally produced anti-BCMA CART cells for the treatment of relapsed/refractory multiple myeloma: phase I clinical results.* Haematologica. 2022 Oct 6. doi: 10.3324/haematol.2022.281628. Epub ahead of print. PMID: 36200421, Point-of-care CART manufacture and delivery: Expanding access to CART therapy via local institutions, Hadassah Medical Center experience. Poster Presentation, European Society for Blood and Marrow Transplantation and European Hematology Association 5th European CAR T-cell Meeting. 2023 Feb 9-11, Nexcella, Inc. E. Lebel et al. Efficacy and Safety of a Locally Produced Novel Anti-BCMA Chimeric Antigen Receptor T-Cell (CART) (HBI0101) for the Treatment of Relapsed and Refractory Multiple Myeloma, International Myeloma Society 20th Annual Meeting. 2023.

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Targeting Oncology & Other Diseases