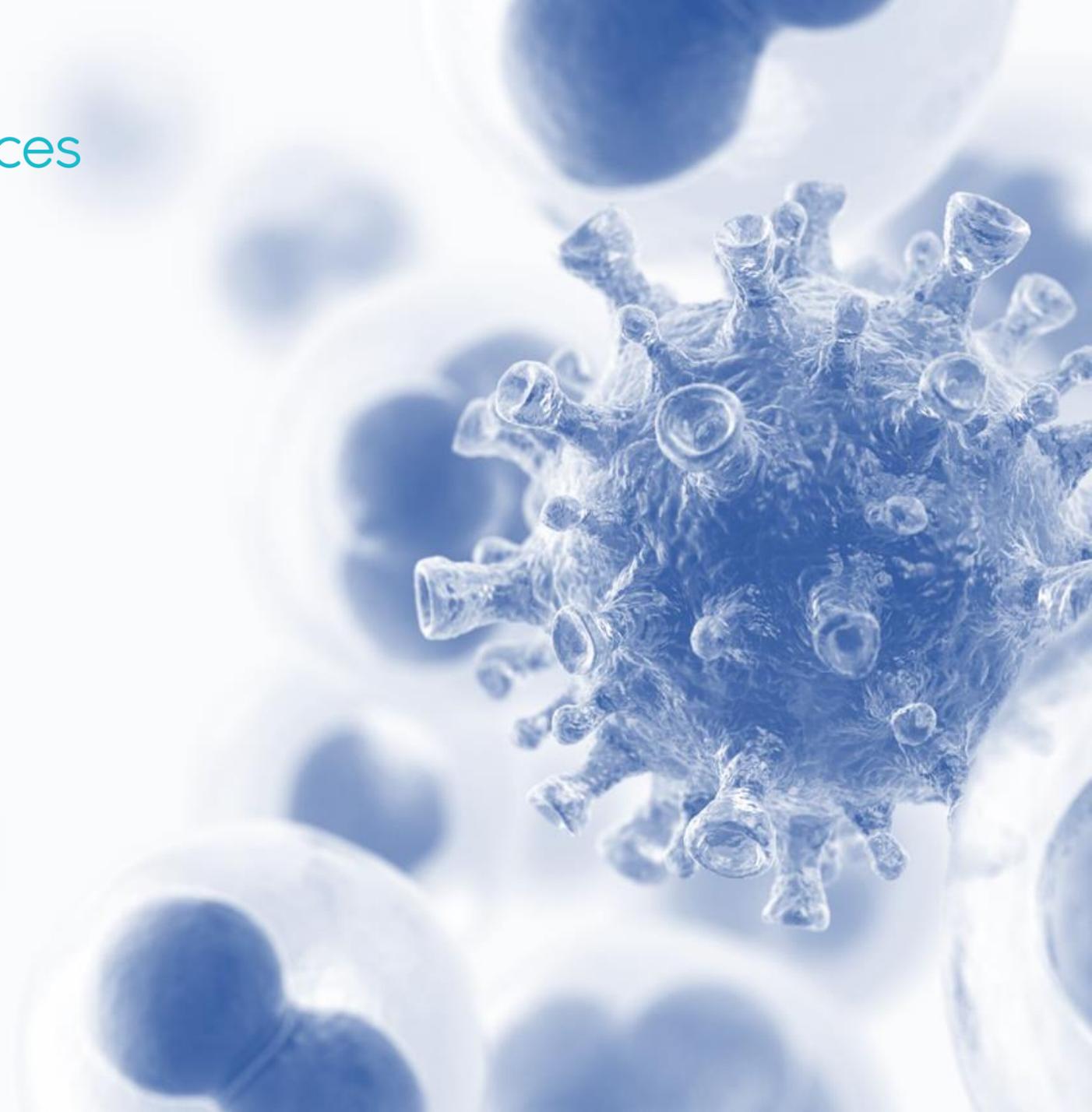




Merger Announcement

November 13, 2023



Disclaimers and Forward-Looking Statements

Disclosures

For the purposes of this notice, the “presentation” that follows shall mean and include the slides that follow, the oral presentation of the slides by members of management of Selecta Biosciences, Inc. (“Selecta”) and Cartesian Therapeutics, Inc. (“Cartesian”) or any person on their behalf, any question-and-answer session that follows such oral presentation, hard copies of this document and any materials distributed at, or in connection with, such oral presentation.

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Any statements in this presentation about the future expectations, plans and prospects of Selecta and/or Cartesian, including without limitation, statements regarding the Merger, expectations regarding the perceived benefits of the Merger, the concurrent financing (the “Financing”), expectations regarding the use of proceeds from the Financing, expectations regarding the timing and outcome of the special stockholder meeting to be held following the Merger, including the likelihood that stockholders will approve the conversion of preferred stock issued in the Merger and the Financing into common stock, Selecta’s and Cartesian’s ability to efficiently integrate operations following the Merger, the combined company’s cash runway, the combined company’s ability to execute its development plans and manage its operating expenses, the unique proprietary technology platform of Selecta, Cartesian or the combined company, expectations regarding the safety and efficacy of Cartesian’s Descartes-08 product candidate, RNA Armory proprietary platform and other pipeline candidates, the anticipated timing or the outcome of ongoing and planned clinical trials, studies and data readouts, the anticipated timing or the outcome of the FDA’s review of the combined company’s regulatory filings, the combined company’s and its partners’ ability to conduct its and their clinical trials and preclinical studies, the timing or making of any regulatory filings, the anticipated timing or outcome of selection of developmental product candidates, the potential treatment applications of the combined company’s product candidates, the novelty of treatment paradigms that the combined company is able to develop, whether the observations made in non-human study subjects will translate to studies performed with human beings, the potential of any therapies developed by the combined company to fulfill unmet medical needs, and other statements containing the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “hypothesize,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “would,” and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including, but not limited to, the following: the uncertainties related to the timing and expected benefits of the Merger, the uncertainty inherent in the outcome of stockholder votes at the special stockholder meeting to be held in connection with the Merger, the uncertainties inherent in the initiation, completion and cost of clinical trials including proof of concept trials, including the uncertain outcomes, the availability and timing of data from ongoing and future clinical trials and the results of such trials, whether preliminary results from a particular clinical trial will be predictive of the final results of that trial and whether results of early clinical trials will be indicative of the results of later clinical trials, the ability to predict results of studies performed on human beings based on results of studies performed on non-human subjects, the unproven approach of the combined company’s technology, potential delays in enrollment of patients, undesirable side effects of the combined company’s product candidates, its reliance on third parties to conduct its clinical trials, the combined company’s inability to maintain its existing or future collaborations, licenses or contractual relationships, its inability to protect its proprietary technology and intellectual property, potential delays in regulatory approvals, the availability of funding sufficient for its foreseeable and unforeseeable operating expenses and capital expenditure requirements, recurring losses from operations and negative cash flows, substantial fluctuation in the price of the combined company’s common stock, risks related to geopolitical conflicts and pandemics and other important factors discussed in the “Risk Factors” section of the Selecta’s most recent Annual Report on Form 10-K and subsequently filed Quarterly Reports on Form 10-Q, and in other filings that the Selecta makes with the Securities and Exchange Commission (the “SEC”). In addition, any forward-looking statements included in this presentation represent Selecta’s and Cartesian’s views only as of the date of its publication and should not be relied upon as representing its views as of any subsequent date. Each of Selecta and Cartesian specifically disclaims any intention to update any forward-looking statements included in this presentation, except as required by law.

Disclaimers and Forward-Looking Statements

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This presentation is not a proxy statement or solicitation of a proxy, consent or authorization with respect to any securities or in respect of the Merger and shall not constitute an offer to sell or a solicitation of an offer to buy the securities of Selecta or Cartesian, nor shall there be any sale of any such securities in any state or jurisdiction in which such offer, solicitation, or sale would be unlawful prior to registration or qualification under the securities laws of such state or jurisdiction. No offer of securities shall be made, except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended, or an exemption therefrom.

The combined company expects to file a proxy statement with the SEC relating to the proposals to be voted upon at an upcoming meeting of stockholders (the “Meeting Proposals”). The definitive proxy statement will be sent to all combined company stockholders. Before making any voting decision, investors and security holders of the combined company are urged to read the proxy statement and all other relevant documents filed or that will be filed with the SEC in connection with the Meeting Proposals as they become available because they will contain important information about the Merger agreement and related transactions and the Meeting Proposals to be voted upon. Investors and security holders will be able to obtain free copies of the proxy statement and all other relevant documents filed or that will be filed with the SEC by the combined company through the website maintained by the SEC at www.sec.gov.

Participants in Solicitation

Selecta, Cartesian, and their respective directors, executive officers and employees may be deemed to be participants in the solicitation of proxies in respect of the Merger. Information regarding Selecta’s directors and executive officers is available in the Selecta’s Annual Report on Form 10-K for the year ended December 31, 2022 filed with the SEC on March 2, 2023. Information regarding the persons who may, under the rules of the SEC, be deemed participants in the proxy solicitation and a description of their direct and indirect interests, by security holdings or otherwise, will be contained in the proxy statement and other relevant materials to be filed with the SEC when they become available.

Selecta and Cartesian merger creates publicly traded company pioneering RNA cell therapy to treat autoimmune disease

Cartesian Opportunity	<ul style="list-style-type: none">• Leader in RNA cell therapy for the treatment of autoimmune diseases• Deep pipeline of autoimmune programs• Strong IP portfolio
Clinically Validated Lead Program	<ul style="list-style-type: none">• Descartes-08: observed deep and durable clinical responses in myasthenia gravis (MG) patients in Phase 2a study
Integrated Capabilities	<ul style="list-style-type: none">• Merger to create fully integrated organization with in-house cGMP manufacturing, R&D, regulatory, clinical operations, and existing public company infrastructure
Near-Term Catalysts	<ul style="list-style-type: none">• Plan to initiate Phase 2 trial for Descartes-08 in SLE in 1H 2024• Phase 2b data for Descartes-08 in MG expected in mid-2024• Plan to initiate Descartes-08 ocular autoimmune basket trial in mid-2024• Plan to initiate Descartes-08 vasculitic autoimmune basket trial in 2H 2024

Cash resources expected to fund continued clinical development of Descartes-08 through Phase 3 and multiple additional clinical programs

Summary of Transaction

Stock-for-stock transaction

- All of Cartesian's outstanding equity interests were exchanged for a combination of shares of Selecta common stock and a newly created non-voting Series A convertible preferred stock
- Surviving entity name / ticker: Cartesian Therapeutics / "RNAC", effective at market open on Nov 14, 2023

Transaction summary

- ~\$60.3 million PIPE announced concurrently with deal announcement, anchored by Board member of Selecta, Tim Springer
- Pro forma ownership splits: ~58.0% Cartesian, ~21.4% Selecta, ~20.6% PIPE
- Expected pro forma cash at close over \$110 million

Legacy Selecta stockholders

- To receive CVR for future economic benefits related to legacy Selecta assets, including SEL-212, net of certain Selecta liabilities

Combined organization overview

Management



Carsten Brunn, PhD
President and CEO



Blaine Davis
CFO



Metin Kurtoglu, MD, PhD
COO



Emily English, PhD
VP, Quality



Chris Jewell, PhD
Chief Scientific Officer



Milos Miljkovic, MD
CMO



Matthew Bartholomae
General Counsel

Select Board Members



Carrie S. Cox
Chairman



Timothy Springer, PhD
Director



Murat Kalayoglu, MD, PhD
Director
*Cartesian Co-Founder and
pre-merger CEO*



Michael Singer, MD, PhD
Director
*Cartesian Co-Founder and pre-merger
Chief Strategy Officer*

Experienced management team to lead the RNA cell therapy company of the future

Cartesian – Clinical-stage company pioneering RNA cell therapy for autoimmunity

Expanding the Reach and Potential of Cell Therapy

- RNA cell therapies do not require lymphodepletion
- Designed to be dosed more reliably and repeatedly at safe therapeutic doses versus DNA analogs

Promising Lead Asset

- Descartes-08, a potential first-in-class RNA CAR T-cell (rCAR-T) therapy for autoimmune diseases
- Successful Phase 2a trial using an engineered cell therapy to treat autoimmunity

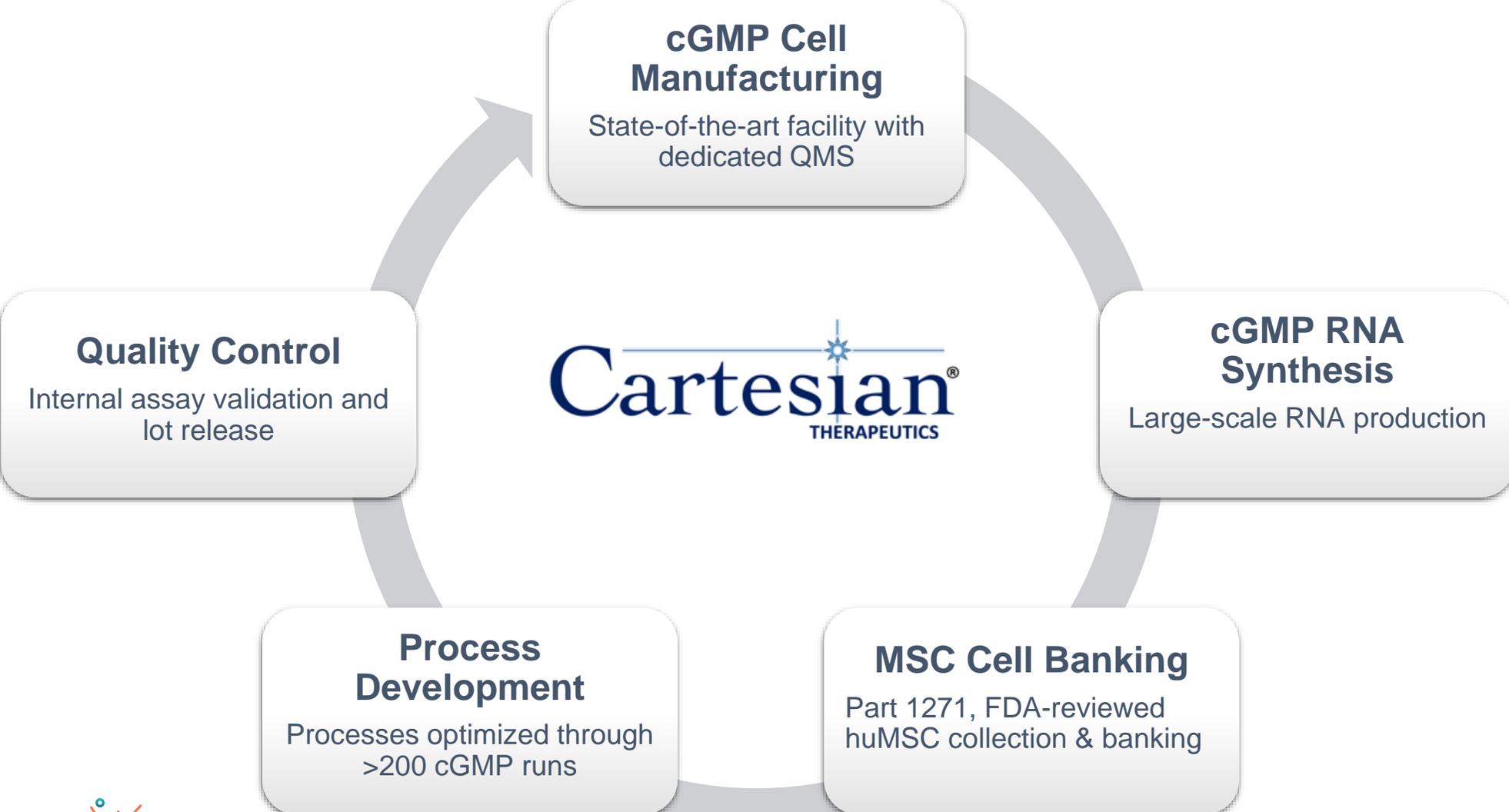
In-House Manufacturing and R&D

- Wholly-owned, state-of-the-art GMP manufacturing
- Designed to optimize processes rapidly and iteratively

Robust Pipeline Based on Proprietary Platform

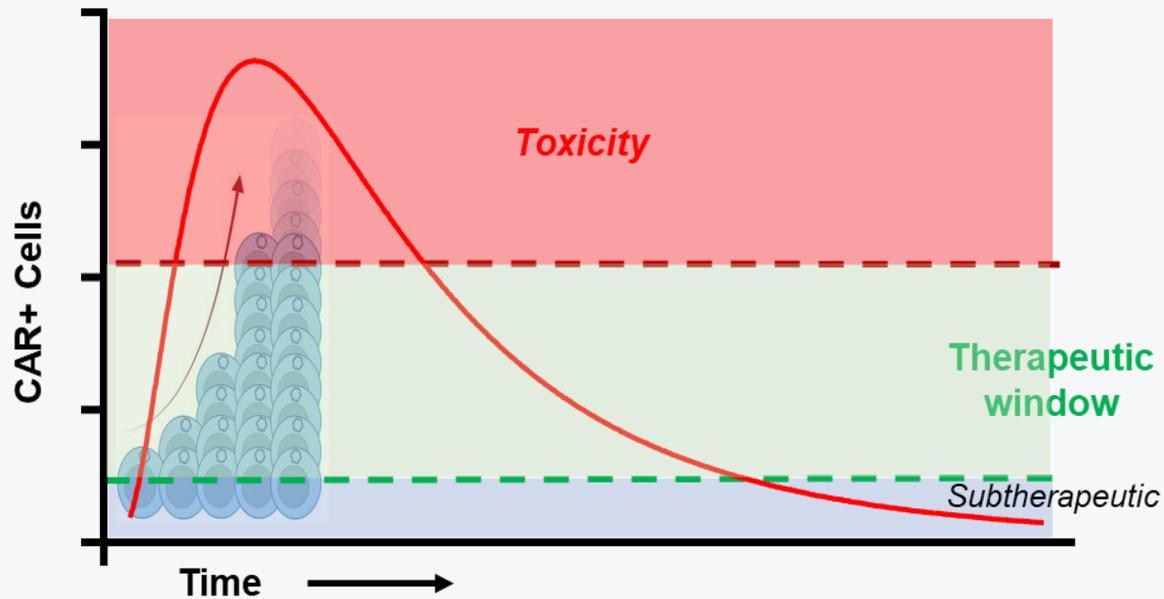
- RNA Armory® designed to enable precision control and optimization of engineered cells for diverse cell therapies
- Modalities include autologous, allogeneic, and *in vivo* transfection approaches

In-house manufacturing enhances control of product quality, production schedules and costs



Conventional engineered cell therapy uses DNA, which can lead to toxicity and high cost

- Effector function of cell therapy engineered with DNA amplifies exponentially with cell replication, frequently leading to uncontrollable PK/PD
- Cells administered at subtherapeutic levels quickly proliferate beyond therapeutic window



DNA transduced CAR-T associated with:

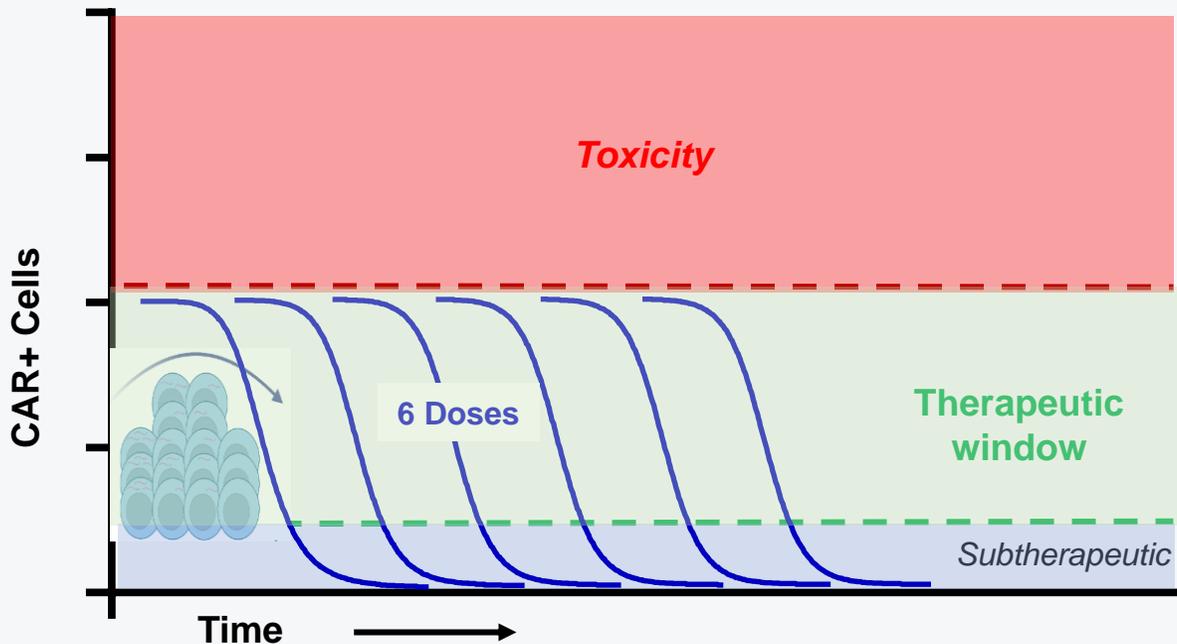
- Cytokine release syndrome (CRS)
- Neurotoxicity and parkinsonism
- Infections
- Death
- Cytopenia (from pre-treatment chemo)

DNA CAR-T cell therapy is expensive

- Direct costs high due to viral vector manufacturing and release of final product
- Indirect costs high due to monitoring/treatment of toxicities

Cartesian's RNA approach designed to expand reach of cell therapy to autoimmunity with safer, potent, and less expensive therapies

- mRNA does not replicate → predictable half-life with more controllable PK/PD defined by the dose
- No requirement for cell proliferation → no expected need for pre-treatment chemo → no Grade 3-4 cytopenias



Descartes-08 has been **administered to 66 patients** with autoimmune diseases and cancer¹ with **no CRS, neurotoxicity, or infections** observed

Treatment with potential to be **administered in community clinics**

Expectation for cells to be **administered in multiple doses** and, if needed, **in more than one cycle**

rCAR-Ts have potential to be **less expensive than DNA CAR-Ts**

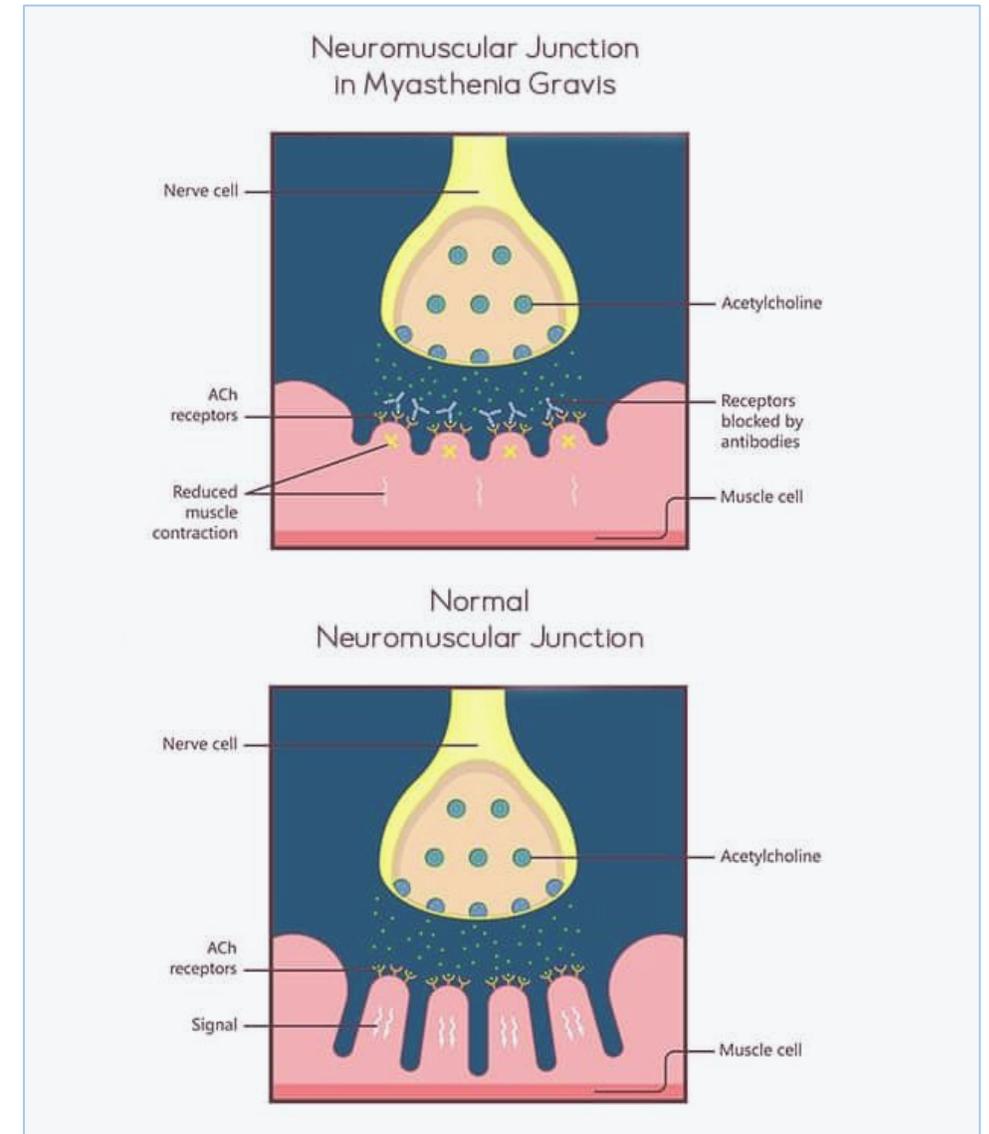
- Lower manufacturing costs
- Lower treatment costs since no expected need for expensive hospitalization, toxicity management, and monitoring

Wholly-owned pipeline targets autoimmune disease

Asset	Indications	Discovery/ Preclinical	Phase 1	Phase 2	Pivotal
Descartes-08 Autologous rCAR-T	Myasthenia Gravis	Data from Phase 2b study expected in mid-2024			
	SLE, other AAAD	Expect to initiate Phase 2 studies in SLE, ocular and vasculitic autoimmune diseases in 2024			
Descartes-15 Autologous rCAR-T	AAAD	Next-gen anti-BCMA rCAR-T with >10x preclinical potency			
Descartes-33 Allogeneic rMSC	AAAD				
<i>In vivo</i> LN transfection	Undisclosed				

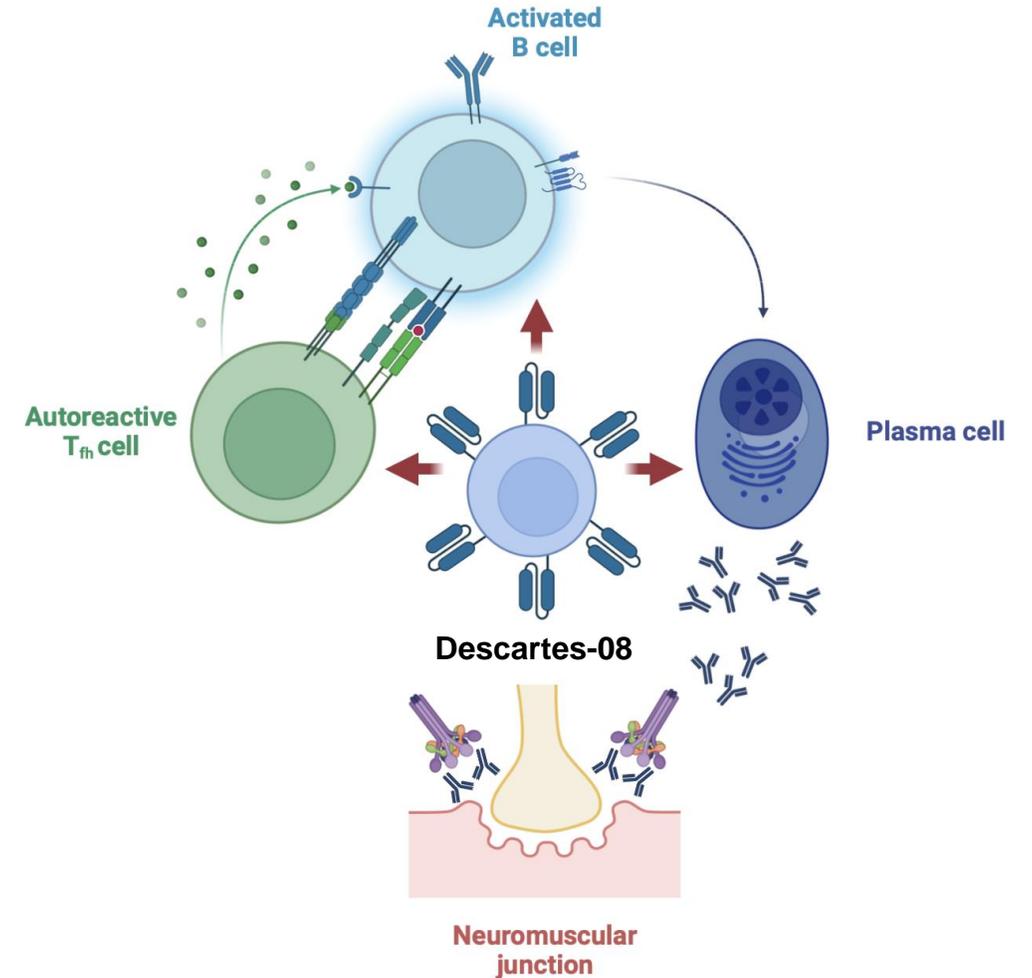
Initial indication for Descartes-08: Myasthenia gravis

- Affects **over 120,000 patients** in US and EU
- Characterized by debilitating weakness: limbs, respiratory, ocular, facial muscles
- **Standard of care** includes **chronic use of immunosuppressants**, which are **often toxic**
 - Progressive disease that is fatal in 1/3 of patients without immunosuppressants
- Newer agents include **complement inhibitors and anti-FcRn mAbs**, which only offer **modest responses** and must be **administered chronically** to maintain those responses
- **Pathogenesis is similar across many autoimmune diseases**; involves attack on self by both T cells and B/plasma cells

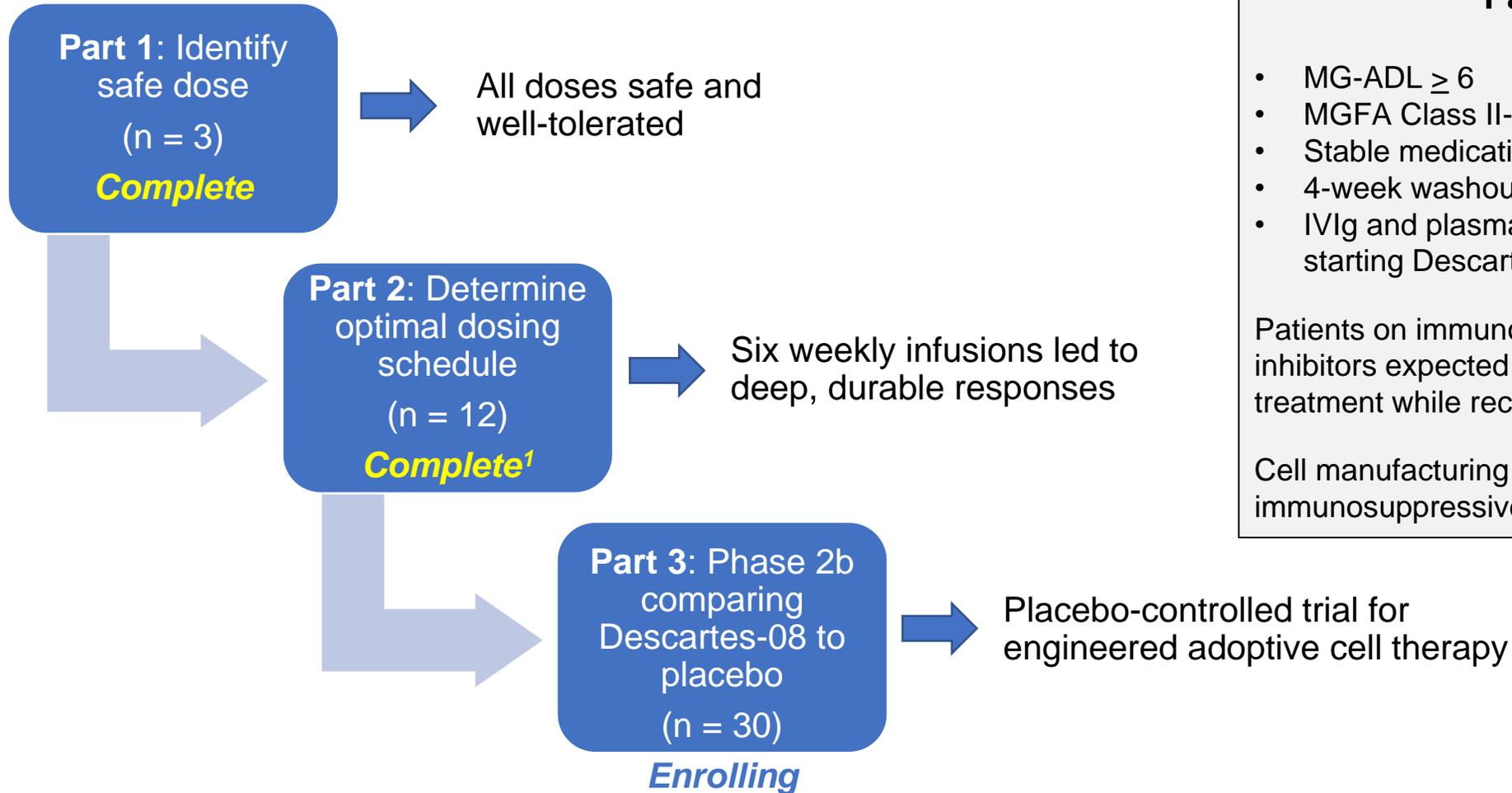


Descartes-08 is believed to be the first rCAR-T in clinical development for autoimmune disease

- Engineered by transfection of autologous CD8+ T cells with mRNA encoding anti-BCMA CAR
- Typical lot **processed for infusion within ~3 weeks**
- Observed to **enhance killing and suppression of inflammatory cytokine secretion** versus T cell therapies derived from pan T cell sources
- **Positive Phase 2a data** in myasthenia gravis underscores potential for deep and durable responses versus current agents
- Granted **U.S. FDA orphan designation** for generalized myasthenia gravis (2022)



Phase 2 study of Descartes-08 in MG (NCT04146051)



Patient eligibility

- MG-ADL ≥ 6
- MGFA Class II-IV
- Stable medication dosing ≥ 8 wks prior to infusion
- 4-week washout for biologics
- IVIg and plasma exchange not allowed after starting Descartes-08

Patients on immunosuppression or complement inhibitors expected to be able to continue their treatment while receiving Descartes-08

Cell manufacturing platform tolerates most standard immunosuppressive therapies

Phase 2a study population comprises patients with significant disease

THE LANCET Neurology

Volume 22, Issue 7, July 2023, Pages 578-590

- Baseline MG-ADL mean score of 10
- 79% were MGFA Class III-IV at screening
- All patients presented with disease that was not well-managed under standard of care therapies

Age, years	52 (18)
Sex	
Female	10 (71%)
Male	4 (29%)
Weight, kg	84 (21)
BMI, kg/m ²	31.6 (8.1)
Race and ethnicity	
White, non-Hispanic	11 (79%)
White, Hispanic	1 (7%)
Asian	2 (14%)
MGFA class at screening	
II	3 (21%)
III	10 (71%)
IV	1 (7%)
Age at disease onset, years	40 (14-79)
Duration of disease, years	14 (3-27)
Myasthenia gravis antibody status	
Anti-AChR antibody	11 (79%)
Anti-MuSK antibody	2 (14%)
Seronegative (for AChR, MuSK, and LRP4 antibodies)	1 (7%)

Baseline score	
QMG	15.3 (4.1)
MG-ADL	10.0 (3.2)
MGC	21.9 (5.7)
MG-QoL-15r	19.9 (5.8)
Previous myasthenia gravis therapies (standard of care)	
Pyridostigmine	14 (100%)
Prednisone	14 (100%)
Other immunosuppressants	14 (100%)
Eculizumab	2 (14%)
Rituximab	2 (14%)
Previous intravenous immunoglobulin	12 (86%)
Previous plasma exchange	8 (57%)
Diagnosis of thymoma	0
Previous thymectomy	6 (43%)
Previous myasthenia gravis crisis requiring intubation	4 (29%)
Myasthenia gravis ongoing therapy	
Pyridostigmine	11 (79%)
Prednisone	10 (71%)
Azathioprine	1 (7%)
Mycophenolate mofetil	1 (7%)

Descartes-08 was observed to be safe and well-tolerated in MG

THE LANCET Neurology

Volume 22, Issue 7, July 2023, Pages 578-590

Key observations:

- No dose-limiting toxicities
- No cytokine release syndrome
- No neurotoxicity
- No pre-treatment chemo, so no induced hematological toxicities
- Outpatient treatment

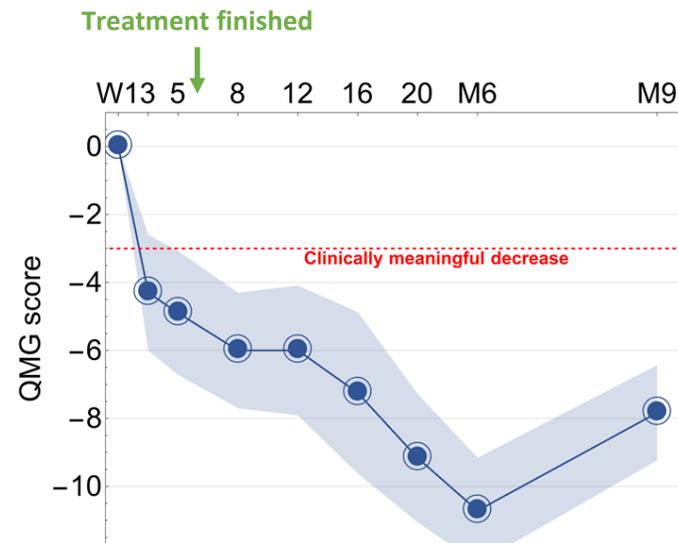
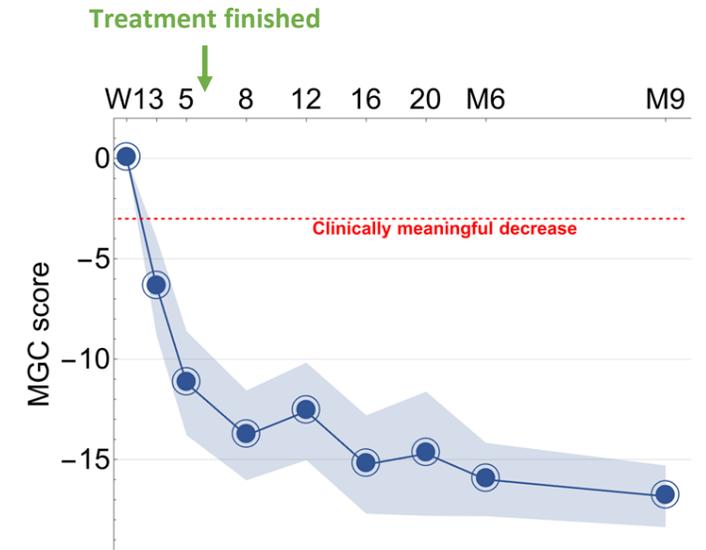
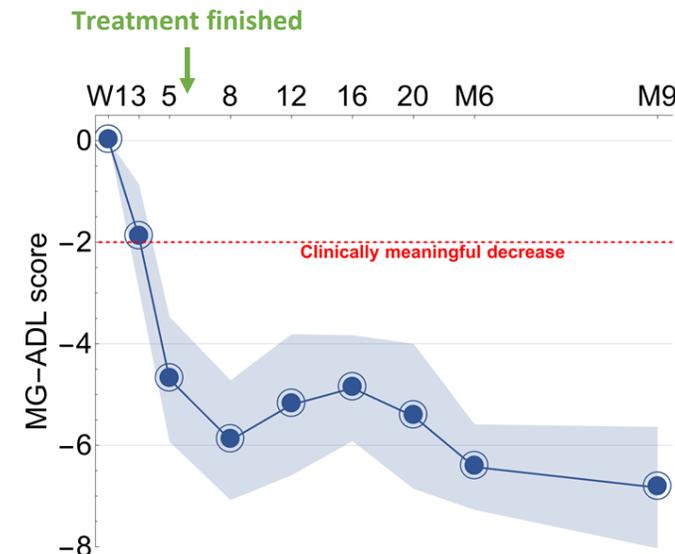
	Grade*	Part 1 (n=3)	Part 2: all groups (n=11)	Part 2: group 1 (n=3)	Part 2: group 2 (n=7)	Part 2: group 3 (n=1)
Hand numbness	2	1 (33%)	0	0	0	0
Headache	1	1 (33%)	5 (45%)	1 (33%)	3 (43%)	1 (100%)
Muscle soreness	1	1 (33%)	1 (9%)	0	1 (14%)	0
Nausea	1	1 (33%)	4 (36%)	2 (67%)	2 (29%)	0
Rash	3	0	1 (9%)	1 (33%)	0	0
Itchy throat	1	0	2 (18%)	0	1 (14%)	1 (100%)
Vomiting	1	0	3 (27%)	2 (67%)	1 (14%)	0
Weakness	1	0	2 (18%)	2 (67%)	0	0
Line infiltration	1	0	1 (9%)	1 (33%)	0	0
Fever	1	0	4 (36%)	1 (33%)	3 (43%)	0
Shortness of breath†	1	0	2 (18%)	1 (33%)	1 (14%)	0
Chills	1	0	2 (18%)	1 (33%)	1 (14%)	0
Diarrhoea	1	0	1 (9%)	1 (33%)	1 (14%)	0
Gum inflammation	1	0	1 (9%)	0	1 (14%)	0
Teeth sensitivity	1	0	1 (9%)	0	1 (14%)	0
Night sweats	1	0	1 (9%)	0	1 (14%)	0
Restless leg	1	0	1 (9%)	0	1 (14%)	0
Light-headedness	1	0	1 (9%)	0	1 (14%)	0

Descartes-08 observed to induce deep and durable clinical improvement in MG

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Neurology

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- **Unprecedented magnitude and duration of response** across all 4 standard MG severity scales
- Responses appear to **deepen after completing treatment at Week 6**



Efficacy dataset includes all MG patients completing the 6-dose regimen (n=10). Data are mean score improvement (point) and standard error (light blue shading). Note that QOL scale does not have an agreed-upon threshold for clinically meaningful disease improvement; MG-ADL, MGC and QMG scales are validated, quantitated, standardized instruments of disease severity and have been acceptable endpoints for registration studies.

Phase 2b randomized, placebo-controlled, double-masked study of Descartes-08 in MG

Plan to treat ~30 patients

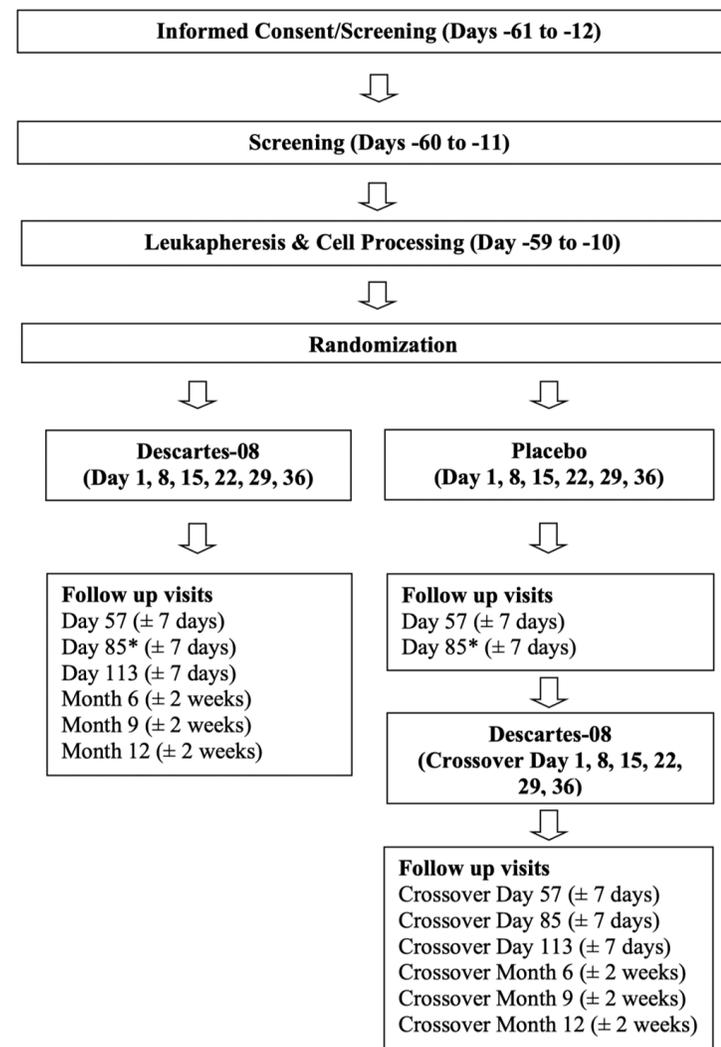
Primary endpoint

- Proportion of **MG ADL** responders (≥ 6 -point reduction) at Day 85

Secondary objectives

- Safety and tolerability
- Quantify clinical effect of Descartes-08 over 1 year
- QMG, MG QoL 15R, MG Composite, and MG PIS (change from baseline to Day 85)
- Compare effect of Descartes-08 versus placebo on MG scales (change from baseline to Day 85) in patients who cross over from placebo to Descartes-08

Enrollment underway, with top-line results expected in mid-2024



Exploring additional applications for Descartes-08 in autoantibody-associated autoimmune diseases

Clinical data suggest that Descartes-08 can lead to clinical benefit along with disappearance of disease-associated autoantibodies, suggesting potential in additional autoimmune indications

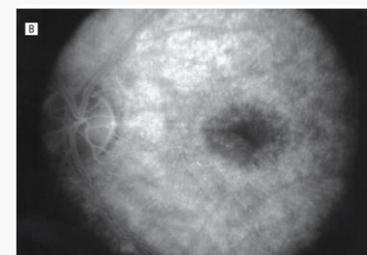
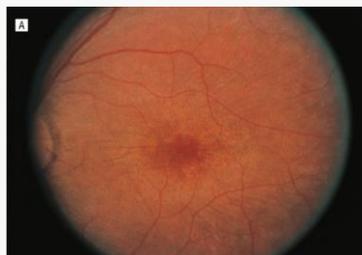
Next steps:

- Plan to initiate Phase 2 in SLE in 1H 2024
- Plan to initiate Phase 2 ocular autoimmune basket trial in mid-2024
- Plan to initiate Phase 2 vasculitic autoimmune basket trial in 2H 2024

Potential significant Descartes-08-associated improvement observed in a patient with autoimmune retinitis (AIR)

61-year-old man with DPPX antibody-positive AIR, colitis, encephalitis refractory to prednisone, rituximab, bortezomib, IVIg; positive for 5/5 disease-associated autoantibodies pre-treatment

Post-treatment: experienced a clinically-significant, 2-line improvement in visual acuity; 3 of 5 autoantibodies became undetectable



Heckenlively, JAMA Ophthalmology, 2000.

Test	Pre-treatment	Month 2	Month 4	Month 6
Visual acuity	20/60	20/40	20/40	20/40
Carbonic anhydrase II Ab	+	-	-	NP*
Tubulin Ab	+	-	-	NP
PKM2 Ab	+	-	-	NP
Aldolase Ab	+	+	+	NP
Enolase Ab	+	+	+	NP

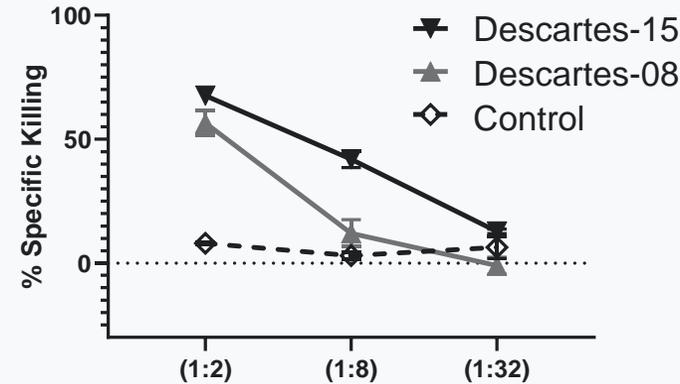
*NP – not performed

RNA Armory[®] example: Descartes-15, a next generation anti-BCMA rCAR-T with >10x potency

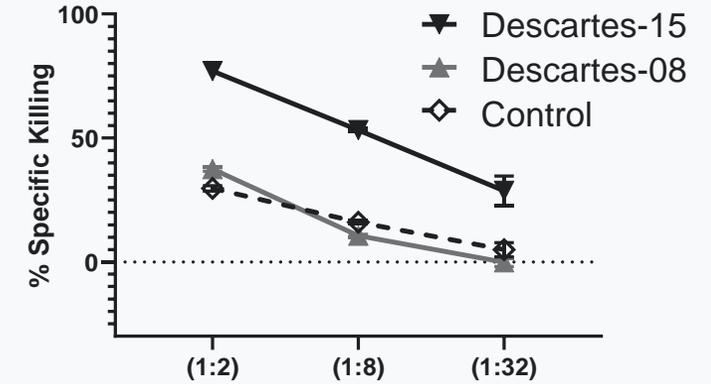
Descartes-15 is an anti-BCMA CAR with disruptive features:

- Engineered for maximum potency and CAR stability, even in the presence of target-driven suppression of CAR
- Clinical strategy expected to leverage strong safety and efficacy data from Descartes-08

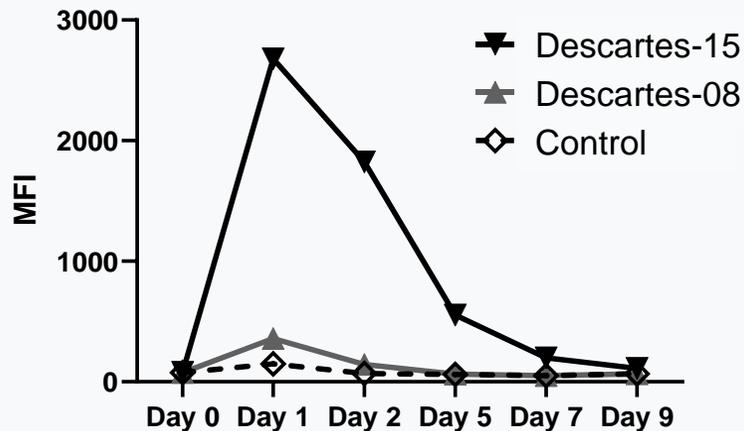
Potent killing (single target exposure)



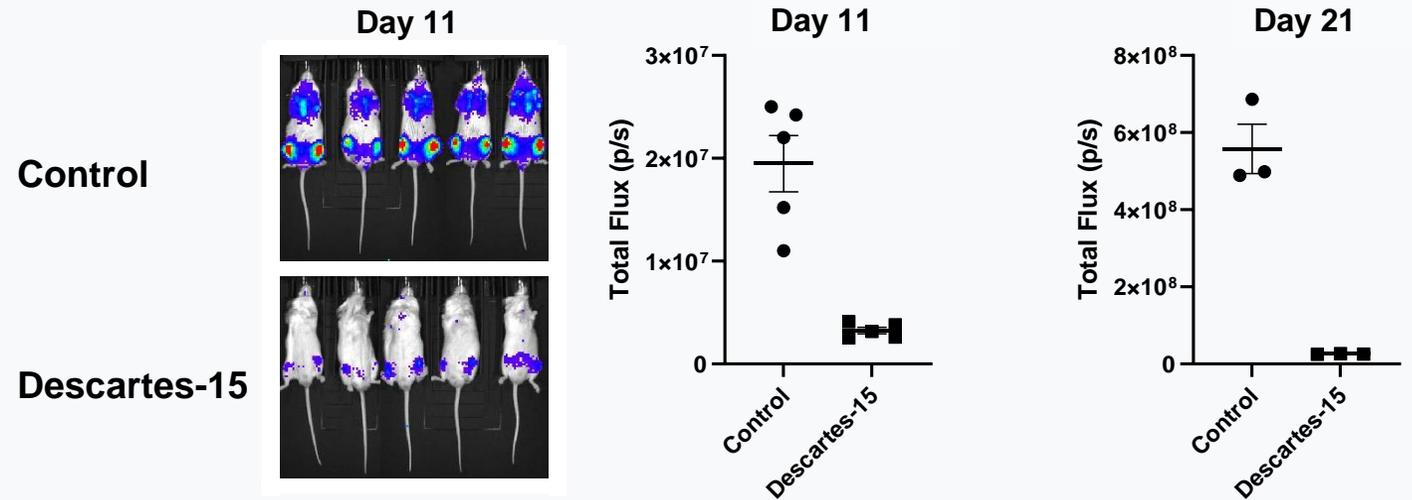
Persistent killing (multiple exposures)



Superior CAR expression



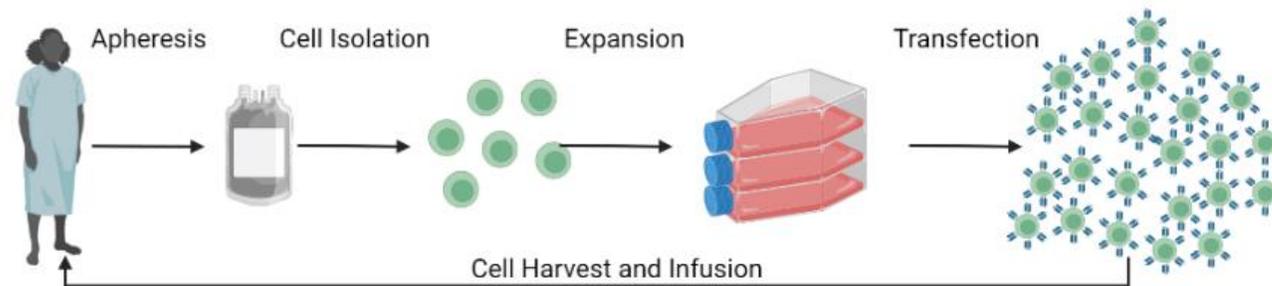
Efficient killing of BCMA+ target cells¹



Platform offers potential development opportunities via three modalities: autologous, allogeneic and *in situ*

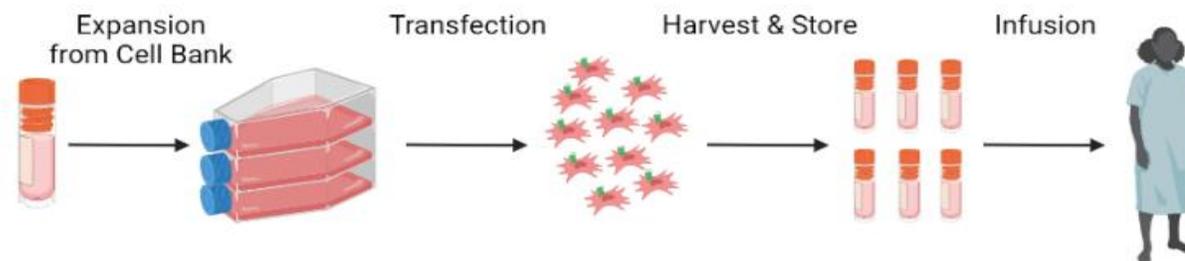
rCAR-T: Autologous RNA cell therapy

- Descartes-08
- Descartes-15: next generation anti-BCMA rCAR-T with >10x potency



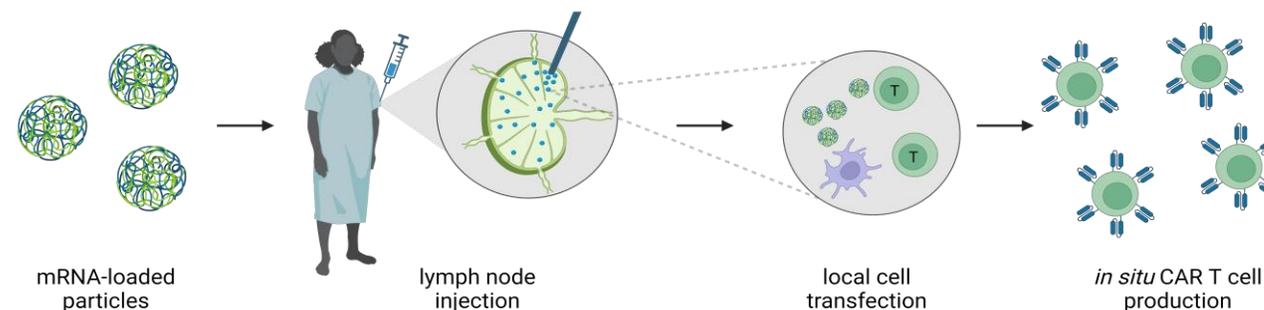
rMSC: Allogeneic RNA cell therapy

- Descartes-33



rLN: *In vivo* lymph node transfection

- Undisclosed program



Maturing pipeline offers potential for multiple value creating events

Funding to support development of Descartes-08 through Phase 3 and advance additional programs

Anticipate >\$110 million at close, including proceeds from PIPE financing

Descartes-08 in MG

- Expect to report Phase 2b data mid-2024

Descartes-08 in SLE

- Plan to initiate Phase 2 in 1H 2024

Descartes-08 Basket Studies

- Plan to initiate ocular autoimmune basket in mid-2024
- Plan to initiate vasculitic autoimmune basket in 2H 2024

Descartes-15 Autoimmune Study

- Plan to initiate Phase 2 study in 2H 2024

Descartes-33 Autoimmune Study

- Plan to submit IND in 2H 2024

Selecta and Cartesian merger to create publicly traded company pioneering RNA cell therapy to treat autoimmune disease

<p>Cartesian Opportunity</p>	<ul style="list-style-type: none"> • Leader in RNA cell therapy with approach to treating autoimmune disease • Deep pipeline of autoimmune programs
<p>Clinically Validated Lead Program</p>	<ul style="list-style-type: none"> • Descartes-08: observed deep and durable clinical responses in myasthenia gravis (MG) patients in Phase 2a study
<p>Integrated Capabilities</p>	<ul style="list-style-type: none"> • Merger to create fully integrated organization with in-house cGMP manufacturing, R&D, regulatory, clinical operations and existing public company infrastructure
<p>Near-Term Catalysts</p>	<ul style="list-style-type: none"> • Plan to initiate Phase 2 trial for Descartes-08 in SLE in 1H 2024 • Phase 2b data for Descartes-08 in MG expected in mid-2024 • Plan to initiate ocular autoimmune basket planned in mid-2024 • Plan to initiate vasculitic autoimmune basket in 2H 2024

Cash resources expected to fund continued clinical development of Descartes-08 through Phase 3 and multiple additional clinical programs



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