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Pioneering CAR T in Autoimmune Diseases

May 2026

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This presentation includes results from named-patient basis access. Similar to expanded access or compassionate use in the United States, "IH" or "Individueller Heilversuch," also known as "named-patient basis access," is a regulatory scheme in Germany that allows for the supply of a treatment that has not received marketing authorization for an individual patient in response to a request by the treating physician on behalf of the named patient. This option can be pursued for the expected benefit of a patient who has exhausted all available treatment options, under the discretion of the treating physician, with the patient's consent. The use of Miv-cel in the IH settings is not a substitute for, or intended to replace, our clinical trials. The goal is not to assess the effectiveness of a potential therapy, but rather to provide an individual patient with a possible efficacious approach when all other treatment options have failed, as determined by the patient's physician. While we do not expect to be able to use the results from these activities as the basis for approval in our applications for marketing approval to the U.S. Food and Drug Administration (FDA) or other foreign regulatory agencies, we believe such activities may provide additional clinical insights beyond highly focused clinical trials in specific geographies.

Poised to Deliver the Curative Potential of CAR T for a Range of Neuroimmunology Diseases

CAR T Leadership
Potentially first approved autoimmune CAR T with most patients treated to date

Best-in-Class Profile
Demonstrated durable drug-free, disease-free remission with single dose

Focused Strategy
Neuroimmunology-led franchise

Valuable Commercial Opportunity in SPS
Immediately addressable market and premium pricing potential

Pipeline-in-a-Product
Clinical data supports expansion into broader indications (e.g., gMG, PMS)

Strong Financial Position
Supporting anticipated SPS commercial launch and gMG Phase 3 trial

gMG, generalized myasthenia gravis; PMS, progressive multiple sclerosis; SPS, stiff person syndrome.

Focused Neuroimmunology Strategy Drives Significant Growth Trajectory for Long-Term Value Creation

Validate miv-cel differentiation with transformative clinical data in SPS and gMG

First mover advantage with SPS; establish commercial foundation; efficient gMG launch to follow

Broaden patient access and expand our reach to additional indications

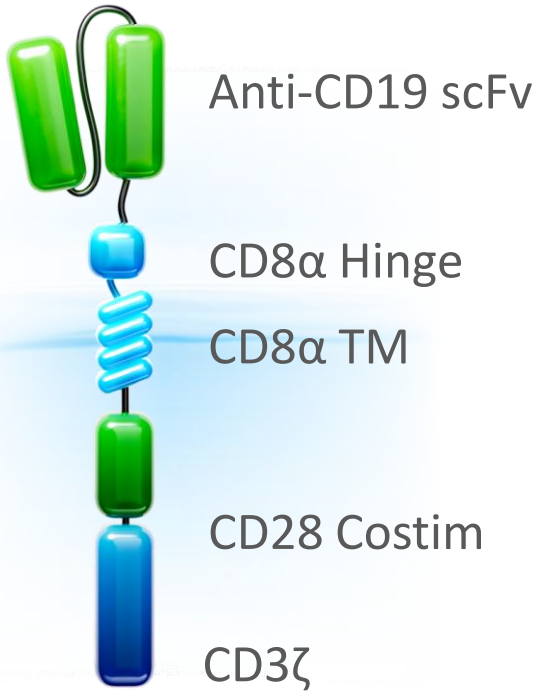
- Focused indication expansion (e.g., PMS)
- Develop no LD or alternative LD regimen
- Reduce COGS and drive greater capacity and scalability

COGs, Cost of Goods Sold; LD, lymphodepletion; PMS, progressive multiple sclerosis.

Miv-cel: Potential First-in-Class and Best-in-Class CAR T Designed for Potency & Tolerability

Mivocabtagene Autoleucel (miv-cel)[1,2]

Only Fully Human Autologous CD19
CAR T With CD28 Costim



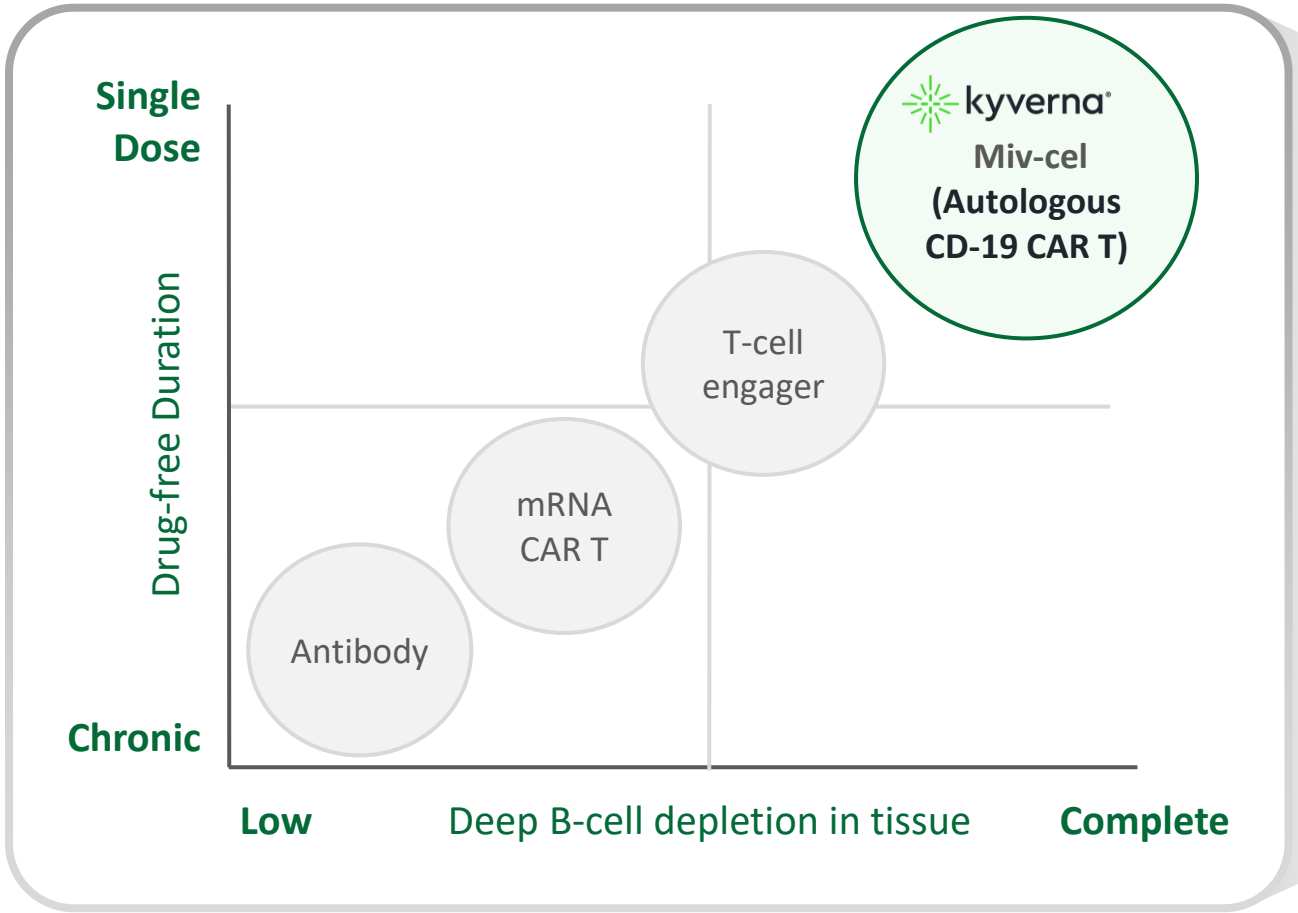
- **More than 100** patients dosed with miv-cel across multiple indications[3]
- **Deep and broad depletion of peripheral- and tissue-resident B cells to support broad immune reset and durable remission[4,5]**
- **No high-grade CRS or ICANS[3]**
- First SPS and gMG patients treated with a single dose of miv-cel achieved **durable efficacy beyond 24 months without the need for chronic immunotherapies[6]**

CRS, cytokine release syndrome; Costim, co-stimulation; gMG, generalized myasthenia gravis; ICANS, immune effector cell-associated neurotoxicity syndrome; scFv, single-chain fragment variable; TM, transmembrane.

1. Brudno JN, et al. *Nat Med.* 2020;26:270-280. 2. Alabanza L, et al. *Mol Ther.* 2017;25:2452-2465. 3.Data on file, Kyverna Therapeutics. 4. Minopoulou I, et al. *Ann Rheum Dis*.2025;84(3):e4-e7. 5. Albach FN, et al. *Rheumatology*. 2025;64(6):4075-4077. 6. Named patient access data, Kyverna Therapeutics.

Miv-cel's Differentiated Therapeutic Profile Compared to Other Modalities

Autoimmune Disease: Clinical Stage Modalities



- **Antibodies** require chronic dosing and provide inadequate depth of response
- **mRNA CAR T** has insufficient B-cell depletion and requires redosing
- **T cell engagers** require chronic dosing and lack complete B-cell depletion
- **In-vivo** technologies are pre-clinical stage for autoimmune and several years from commercial, if successful

mRNA, messenger ribonucleic acid.

Well Positioned to Deliver on our 2026 Catalysts

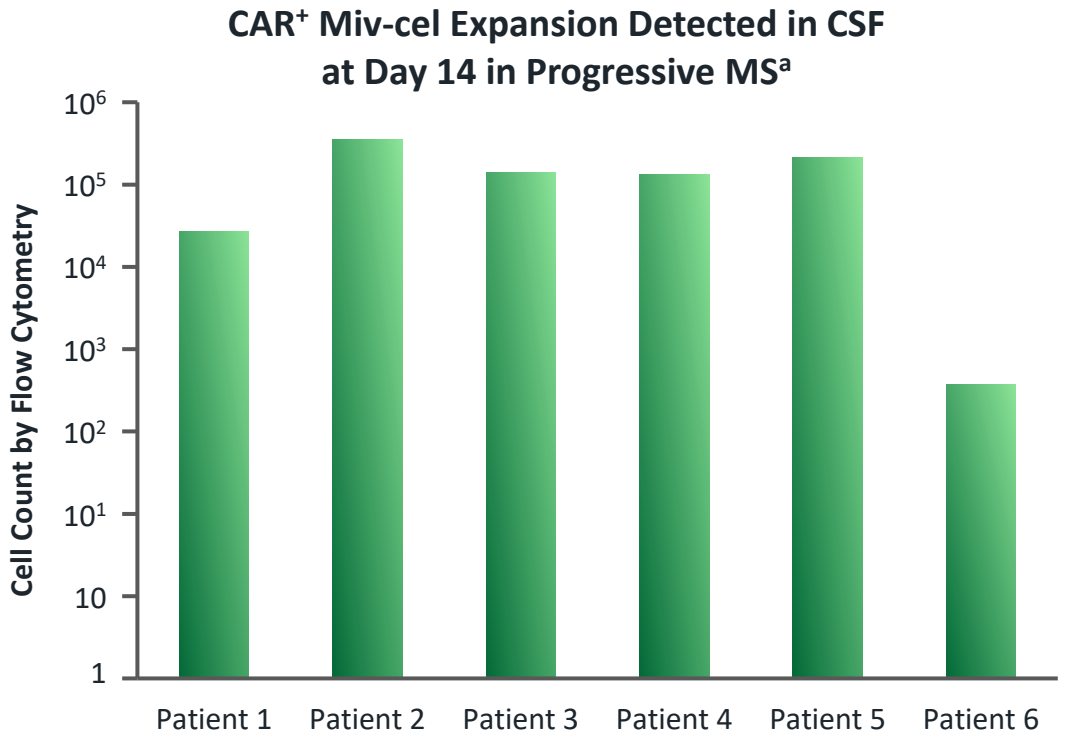
Program	Anticipated Milestones
Stiff Person Syndrome RMAT, ODD	✓ Report primary analysis at AAN 2026 ⊹ Initiated rolling BLA submission with completion expected in Q4 2026 ⊹ Report one-year follow-up data in 2H 2026
Generalized Myasthenia Gravis RMAT, ODD*, FTD†	✓ Report updated data on Phase 2 portion of KYSA-6 trial at AAN 2026 ⊹ Report longer-term follow-up Phase 2 data in 2H 2026
Additional Pipeline Opportunities	⊹ Progressive Multiple Sclerosis: Share development update and report additional data from Phase 1 IIT in 2H 2026 ⊹ Rheumatoid Arthritis: Report Phase 2 IIT data in 2H 2026 ⊹ Lupus Nephritis: Report Phase 1 data in 2H 2026 ✓ KYV-102: IND filed and accepted

BLA, Biologics License Application; FTD, Fast Track Designation; IIT, Investigator-initiated trial; IND, Investigational New Drug; ODD, Orphan Drug Designation; RMAT, Regenerative Medicine Advanced Therapy. *EU & US. †Fast Track Designation does not assure that we will experience a faster development process, regulatory review or regulatory approval process compared to conventional FDA procedures.

Neuroimmunology Franchise

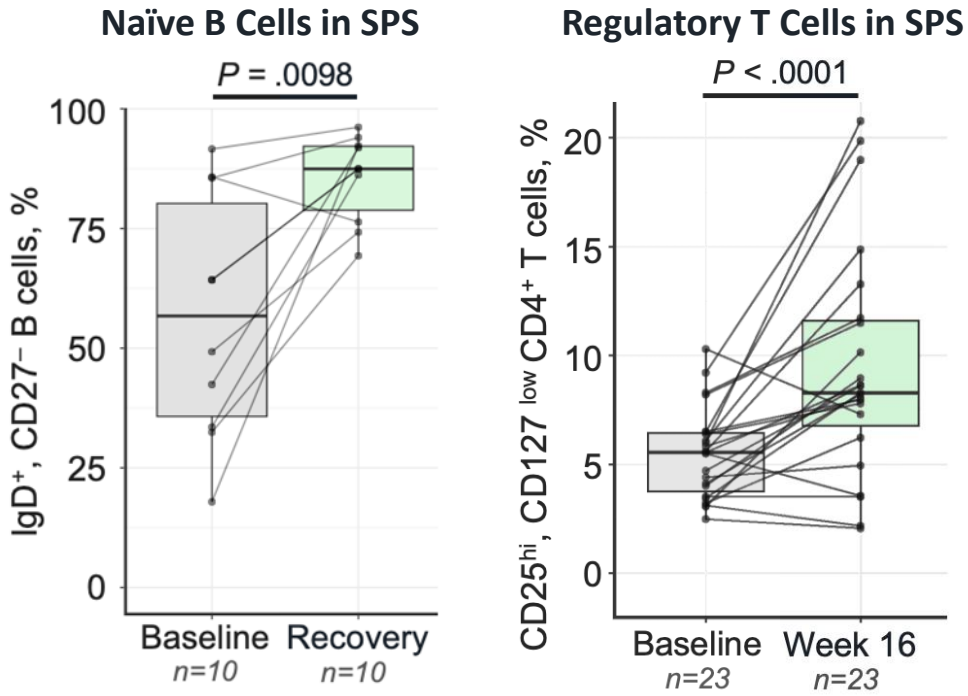
Neuroimmunology Franchise Strategy Driven by Miv-cel's Profound MOA and Ability to Penetrate the CNS

CNS Penetration and Expansion



Acts directly on cells in the CNS at the site of disease[1]

Broad Immune Reset



Resets B cells and upregulates regulatory T cells, important suppressors of CNS disease inflammation[2-4]

[a]Absolute numbers of CAR T cells in CSF assumed a volume of 140 mL and 150 mL for female and male, respectively.

CAR, chimeric antigen receptor; CNS, central nervous system; CSF, cerebrospinal fluid; miv-cel, mivocabtagene autoleucel; SPS, stiff person syndrome.

1. Dunn J, et al. Presented at the ACTRIMS Forum 2026; February 5-7, 2026; San Diego, CA. Poster 112. 2. Piquet A, et al. Presented at the AAN Annual Meeting 2026; April 18-22, 2026; Chicago, IL. LBA Poster 8. 3. Goverman JM. *N Engl J Med.* 2021;384:578-580. 4. Harkins AL, et al. *Crit Rev Immunol.* 2022;42:1-27.

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Significant Market Opportunity for Miv-cel in SPS and gMG

Stiff Person Syndrome

- **First-to-market** opportunity with highly efficient infrastructure
- **~6K U.S. diagnosed patients**[1]
- **Severe, rare disease** with **no approved therapies**
- **High-cost burden** (~$0.7 to $1.5M 3-yr cost per patient)[2]
- **Immediately addressable** patients
- Highly **concentrated** treatment network

Generalized Myasthenia Gravis

- **~80K U.S. diagnosed patients**[3,4]**;** growing market
- **Significant unmet need** with current SOC
- **High-cost burden** (~$2M 3-yr cost per patient)[5,6]
- Opportunity to **change the treatment paradigm**
- **Strong commercial synergies** with SPS enables efficient scaling

Miv-cel: Potential for Significant Premium to Oncology CAR T Pricing; Biologics-like Margins

SOC, standard of care.

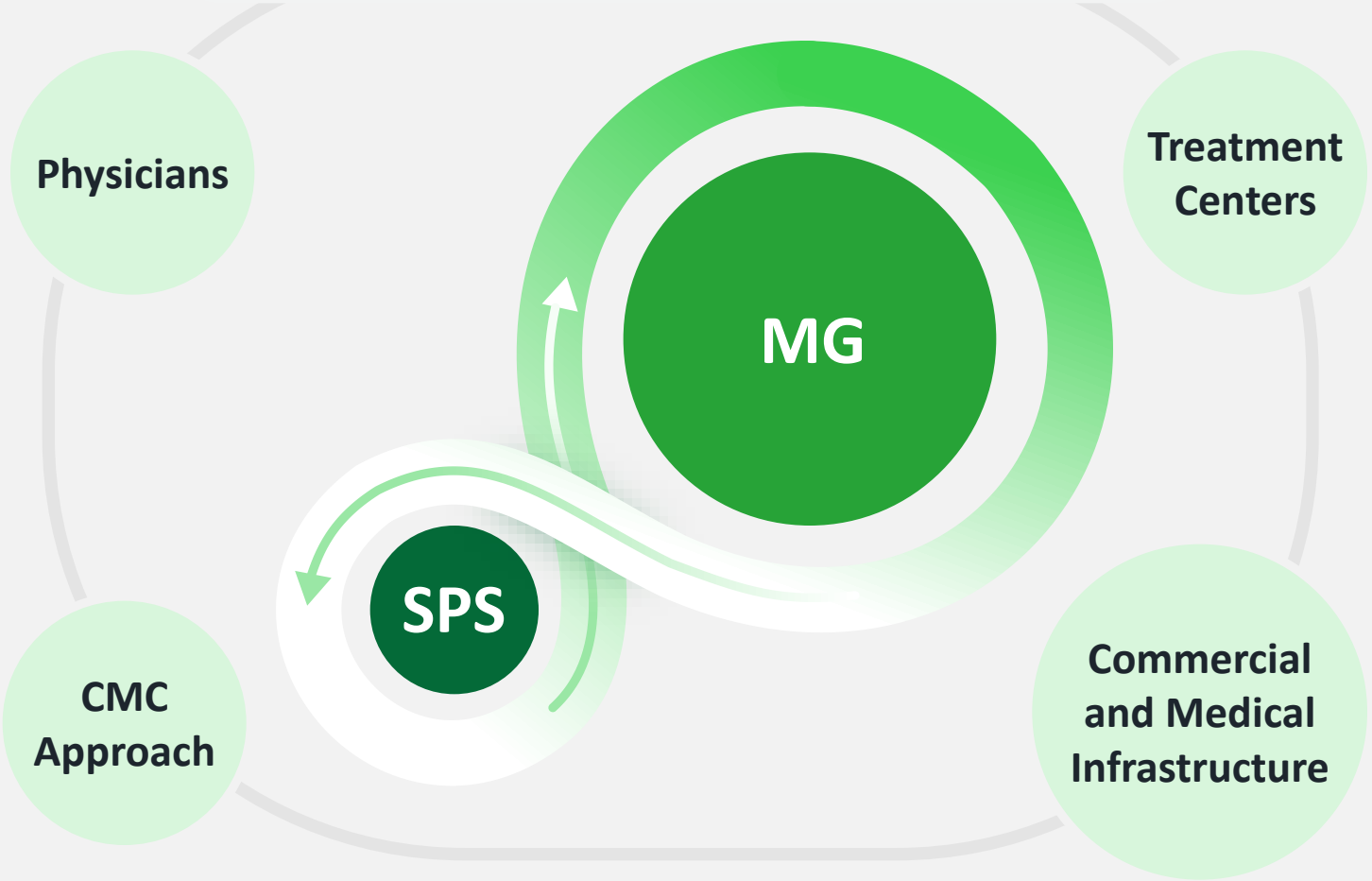
1. Crane PD, et al. *Neurology*. 2024;103(12):e210078. 2. Merative 2025 HCRU Analysis of Commercial Chronic Immunotherapy SPS patients.
3. Rodriguez E, et al. *Muscle. Nerve*. 2024;69(2):166-171. 4. Hendricks TM, et al. *Am J Opthamol*. 2019; 205:99-105. 5. ICER Report on MG 2021. 6. Global Data Pricing database.

Leveraging First-Mover Advantage in SPS to Set Foundation for Efficient and Scalable Growth in gMG and Beyond

Why Being ‘First’ Matters:

- ✓ Develop relationships with neurologists and hospital staff
- ✓ Activate commercial site network and establish processes with key autoimmune treatment centers
- ✓ Establish price with payers
- ✓ Build our end-to-end supply chain
- ✓ Lay commercial foundation for a rapid gMG launch

Neuroimmunology Franchise Synergies



CMC, chemistry, manufacturing, and controls.

Stiff Person Syndrome (SPS)

SPS is a Debilitating, Progressive Autoimmune Disease with No FDA-Approved Therapies

- **SPS impacts the inhibitory signaling pathways,** which are the body's braking system and the **target of autoantibodies** produced by B cells in SPS[1,2]
- Symptoms characterized by **muscle stiffness** and **painful muscle spasms**, impacting mobility[1-3]
- **Inadequate response** with off-label symptomatic and immunomodulatory therapies[1,2,5]

Devastating Impact on Patients

80% of patients lose mobility, needing walking aid assistance or wheelchair[1-3]

Only ~19% of patients remained able to work after 4 years[4]

"Freezing attacks" and sudden falls requiring ER care[1,2]

Risk of **permanent disability** and **increased mortality[3]**

ER, emergency room.

1. Rakocevic G, et al. *BMC Neurol*. 2019;19:1. 2. Dalakas MC. *Nat Rev Neurol*. 2024;20(10):587-601. 3. Duddy ME, Baker MR. *Front Neurol Neurosci*. 2009;26:147-165. 4.NCBI. https://www.ncbi.nlm.nih.gov/sites/books/NBK573078/
5. Dalakas MC. *Neurol Neuroimmunol Neuroinflamm*. 2023;10(3):e200109.

KYSA-8 Patient Perspectives:
Before and After Treatment with Miv-cel
Case Studies

View Video

View Video

View Video

SPS Registrational Trial – Rolling BLA Submission Initiated

Received Both ODD and RMAT Designations

KYSA-8: Open-label, single-arm, multicenter study

N = 26

- Age 18 to 75 years
- Diagnosis of SPS
- Inadequate response to immunomodulatory therapy
- Stiffness index ≥2

Miv-cel

Low-Dose Cy/Flu lymphodepletion

+

Single infusion of 1×10^8 CAR T cells

SPS immunotherapies are discontinued

Primary endpoints:

- Change from baseline in T25FW at 16 weeks
- Safety

Secondary endpoints: change from baseline at 16 weeks

- Modified Rankin Scale (mRS)
- Distribution of Stiffness Index (DSI)
- Hauser Ambulation Index (HAI)
- Heightened Sensitivity Scale (HSS)

One-year Follow Up

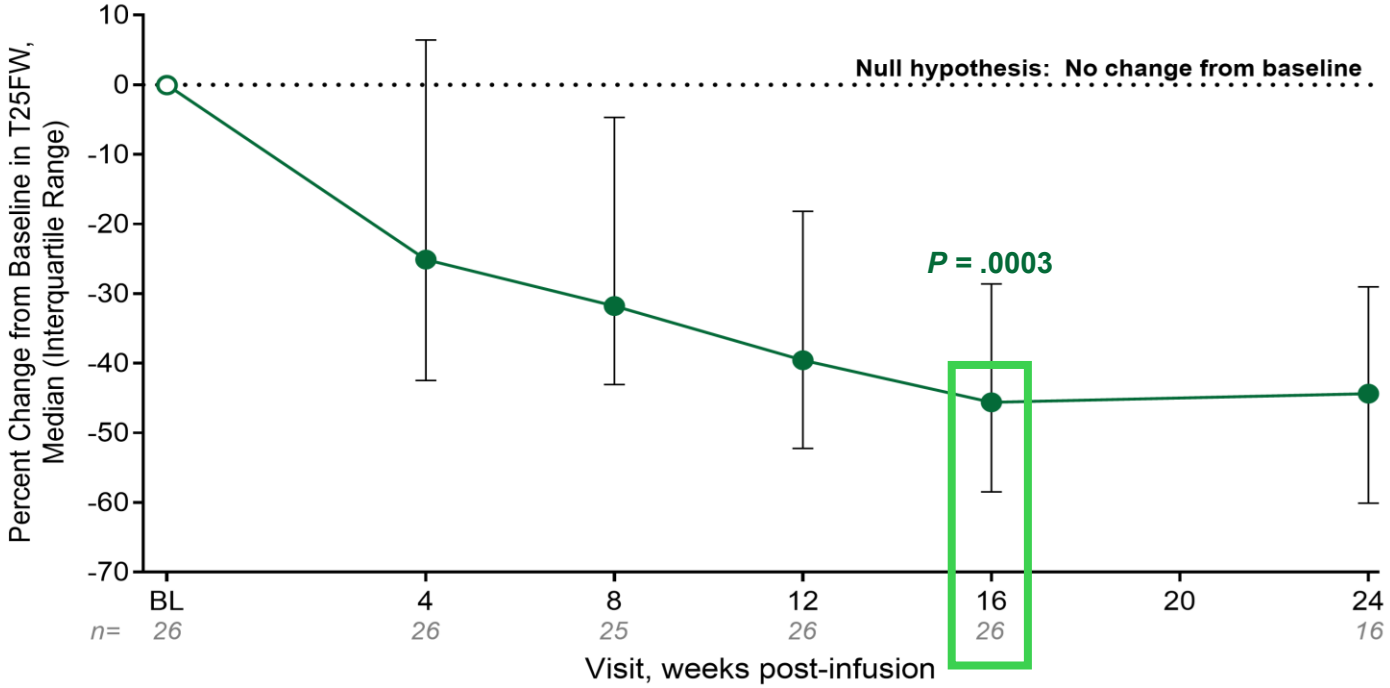
Rapid Clinical Enrollment Underscores Significant Unmet Need and Kyverna's Ability to Execute

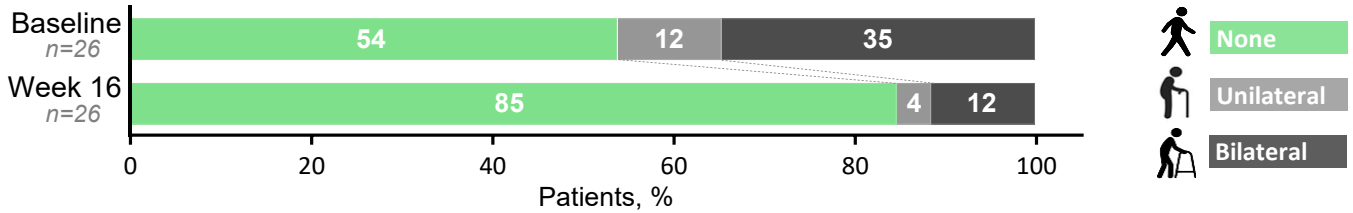
Cy/Flu, cyclophosphamide and fludarabine; ODD, Orphan Drug Designation; RMAT, Regenerative Medicine Advanced Therapy; T25FW, Timed 25-Foot Walk.

Primary Endpoint Met: Significant Improvement in T25FW

46% Median Improvement at Week 16

Significant T25FW Improvement and Reduced Walking Aid Use



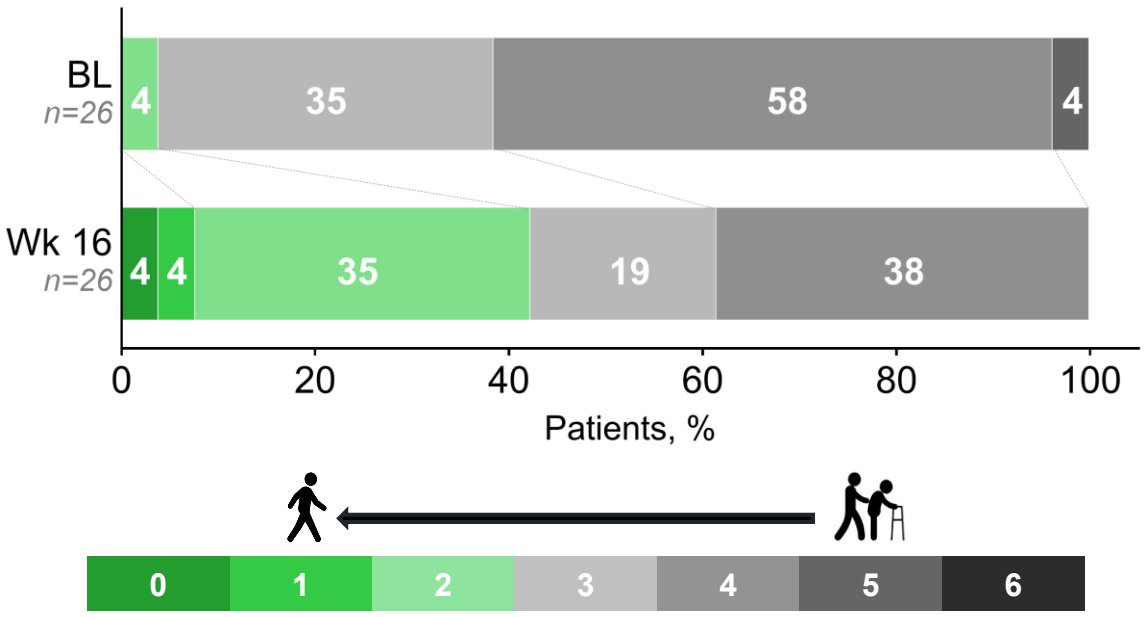


- 81% of patients achieved **clinically meaningful improvement** (≥20% reduction from baseline)[1]
- 31% completed T25FW in <5 seconds; **typical time for healthy adults**[2]
- Of the 12 patients requiring a walking aid for T25FW at baseline, 67% (8/12) **no longer needed assistance** at week 16
- As of week 16 and through last follow-up, all 26 (100%) patients remained **free of immunomodulatory or immunosuppressant therapies** for SPS*

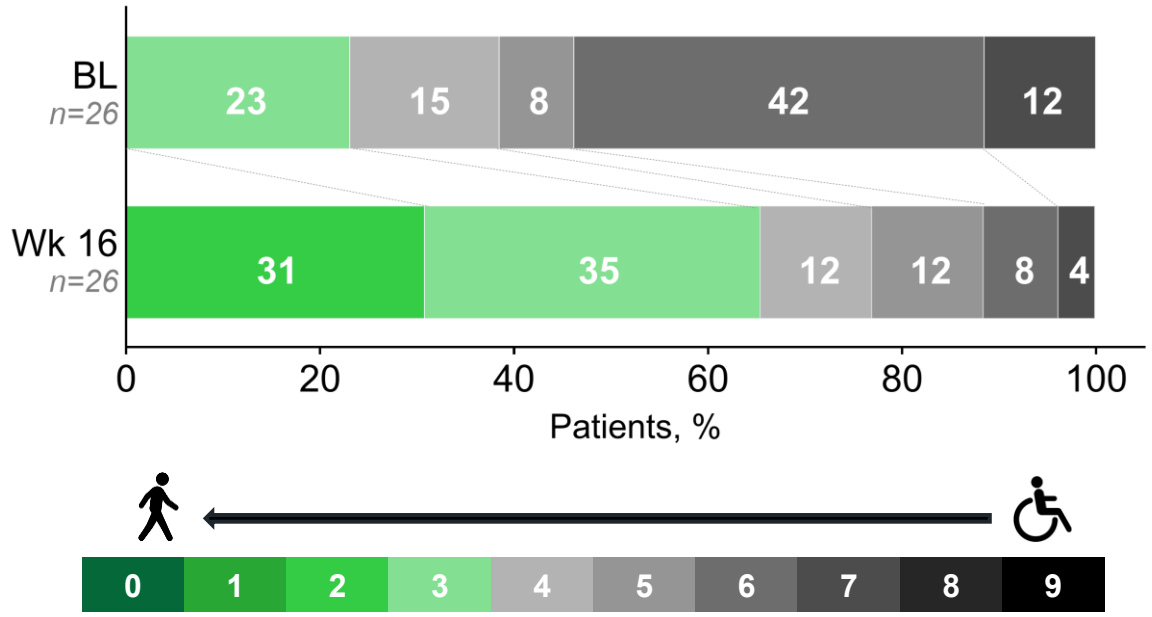
*Includes Includes IVIg/SCIg, PLEX, rituximab and/or prednisone (≥20 mg/day) for SPS symptoms.
Data cutoff: 26Nov2025. Percentages may total more than 100% due to rounding. BL, baseline; T25FW, timed 25-foot walk.
1. Hobart J, et al. *Neurology*. 2013;80(16):1509-17. 2. Motl RW, et al. *Mult Scler*. 2017;23(5):704-710.

Secondary Endpoints Met: Miv-cel Achieved Significant (*P* < .0001) Improvements in Disability, Mobility, Stiffness, and Hypersensitivity

Modified Rankin Scale



Hauser Ambulation Index

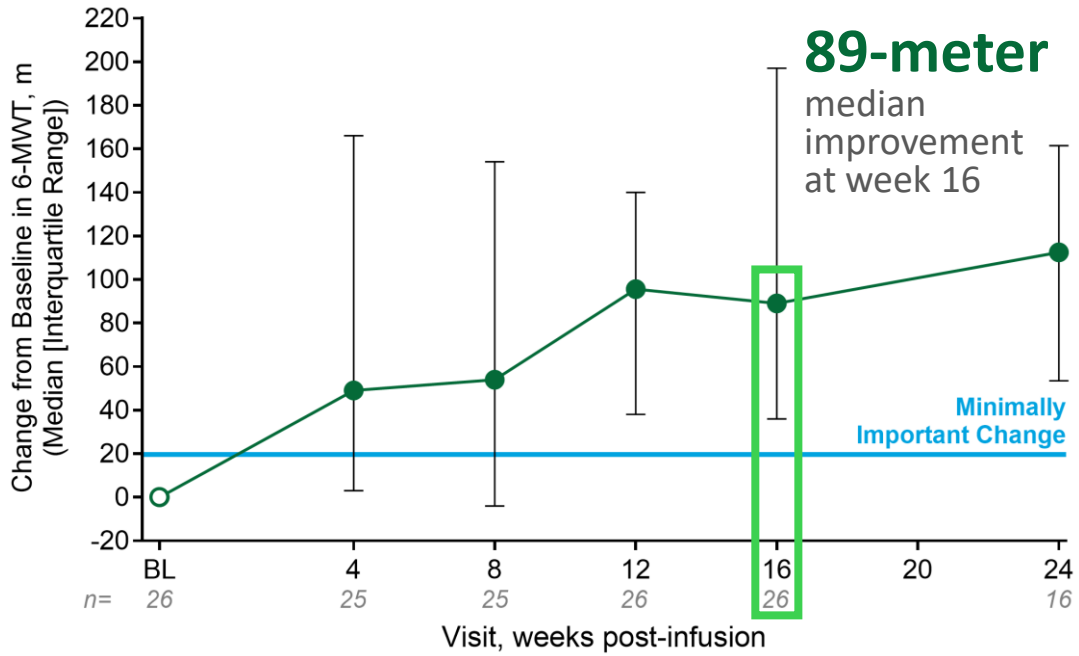


- Significant (*P* < .0001) mean improvements in mRS and HAI of -0.8 (SD, 0.86) and -1.6 (1.13) and SPS-specific measures, DSI and HSS, of -1.5 (1.75) and -3.2 (2.01), respectively
- 96% of patients (25/26) had improvement in ≥1 primary or secondary efficacy endpoint

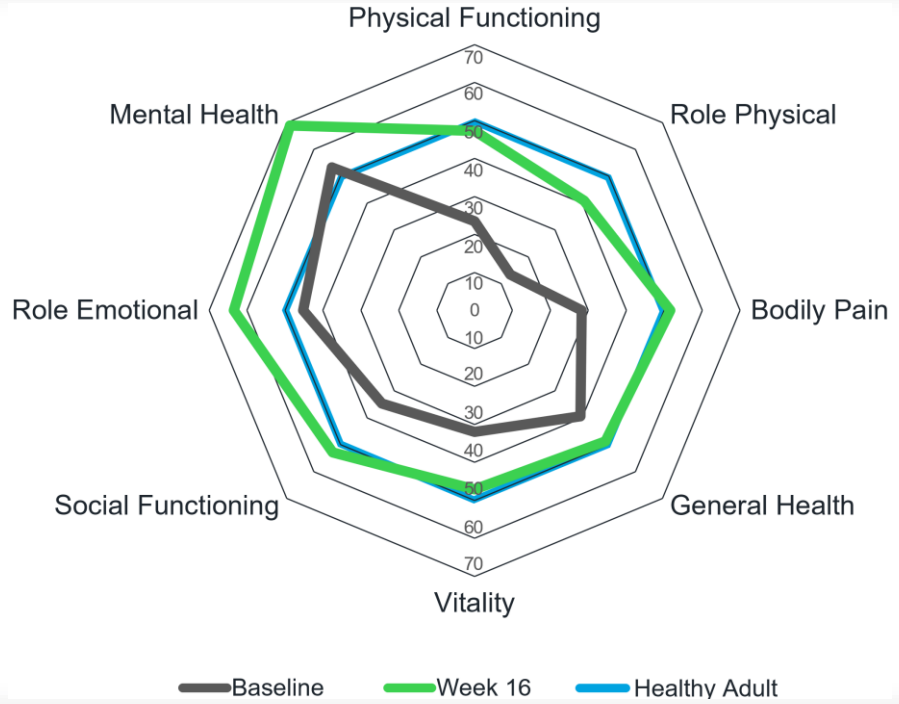
Data cutoff: 26Nov2025. Percentages may total more than 100% due to rounding.
BL, baseline; DSI, Distribution-of-Stiffness Index; HAI, Hauser Ambulation Scale; HSS, Heightened Sensitivity Scale; mRS, Modified Rankin Scale; wk, week.

Additional Efficacy Measures: Substantial Improvements in Physical and Mental Functioning

6-Minute Walk Test (MWT): >4-fold improvement over clinical minimally important change[1]



36-Item Short Form Health Survey (SF-36): Week 16 scores comparable to healthy adults for most domains[2,3]

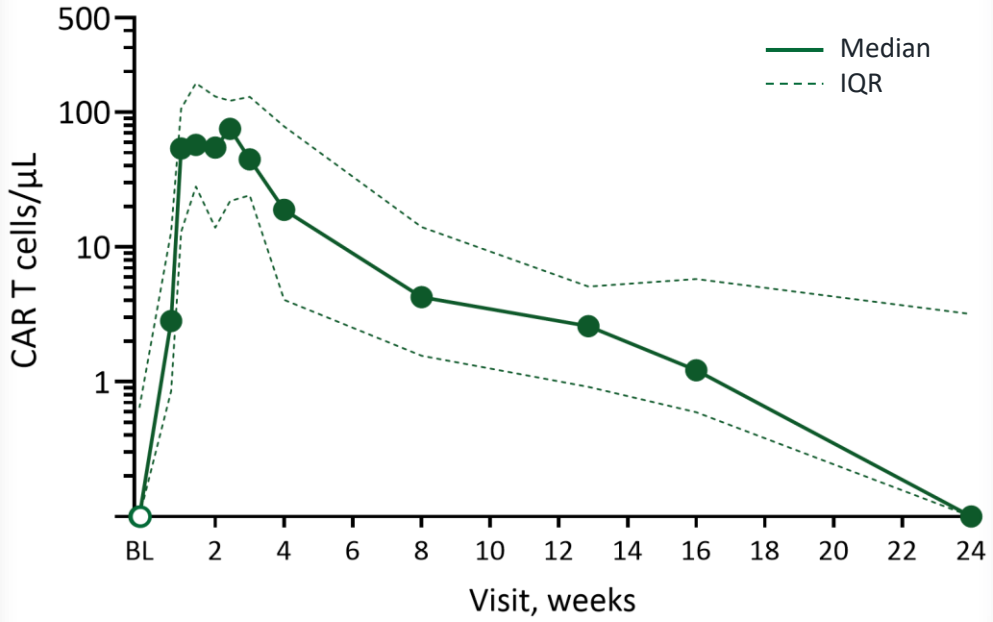


Data cutoff: 26Nov2025.

1. Oosterveer DM, et al. Mult Scler Relat Disord. 2022;57:103438. 2. Maglinte GA, et al. J Clin Epidemiol. 2012;65(5):497-502. 3. Wu Q, et al. Medicine (Baltimore). 2023;102(24):e33979.

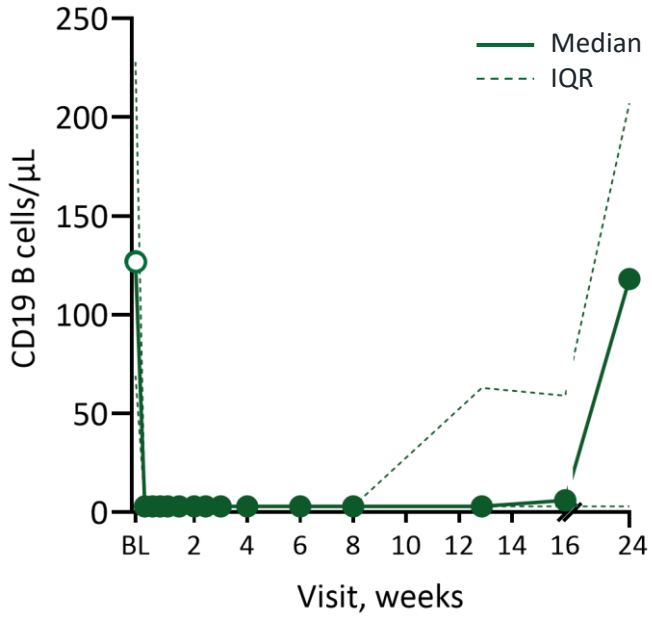
Robust Miv-cel Expansion Led to Complete Peripheral B-cell Depletion and Significant Reductions in Autoantibody Titers

Robust CAR T-cell Expansion



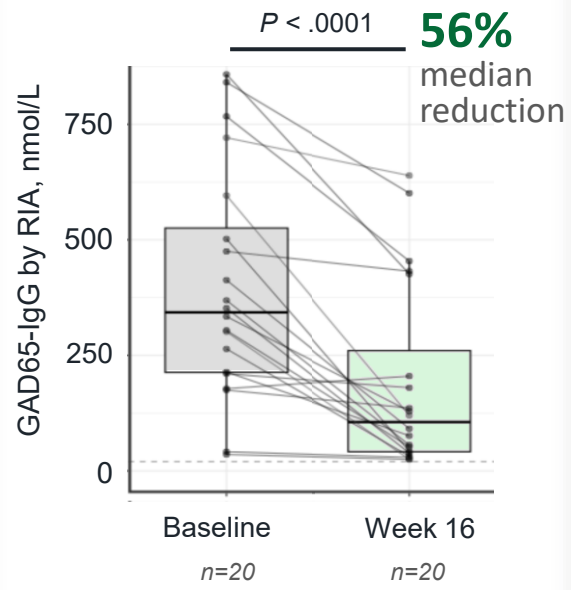
- CAR-positive T cells peaked by day 14

Deep B-cell Depletion



- 54% of patients had B-cell reconstitution by week 16
- Efficacy was maintained with B-cell reconstitution

Reduced GAD65-IgG



- GAD65-IgG was reduced in 19/20 patients with ≥20 nM GAD65 at baseline

Data cutoff: 26Nov2025. Box and whisker plots showing median line (dark line), and interquartile range (box), and min/max (bars).
CAR, chimeric antigen receptor; IgG, immunoglobulin G; GAD65, glutamic acid decarboxylase 65.

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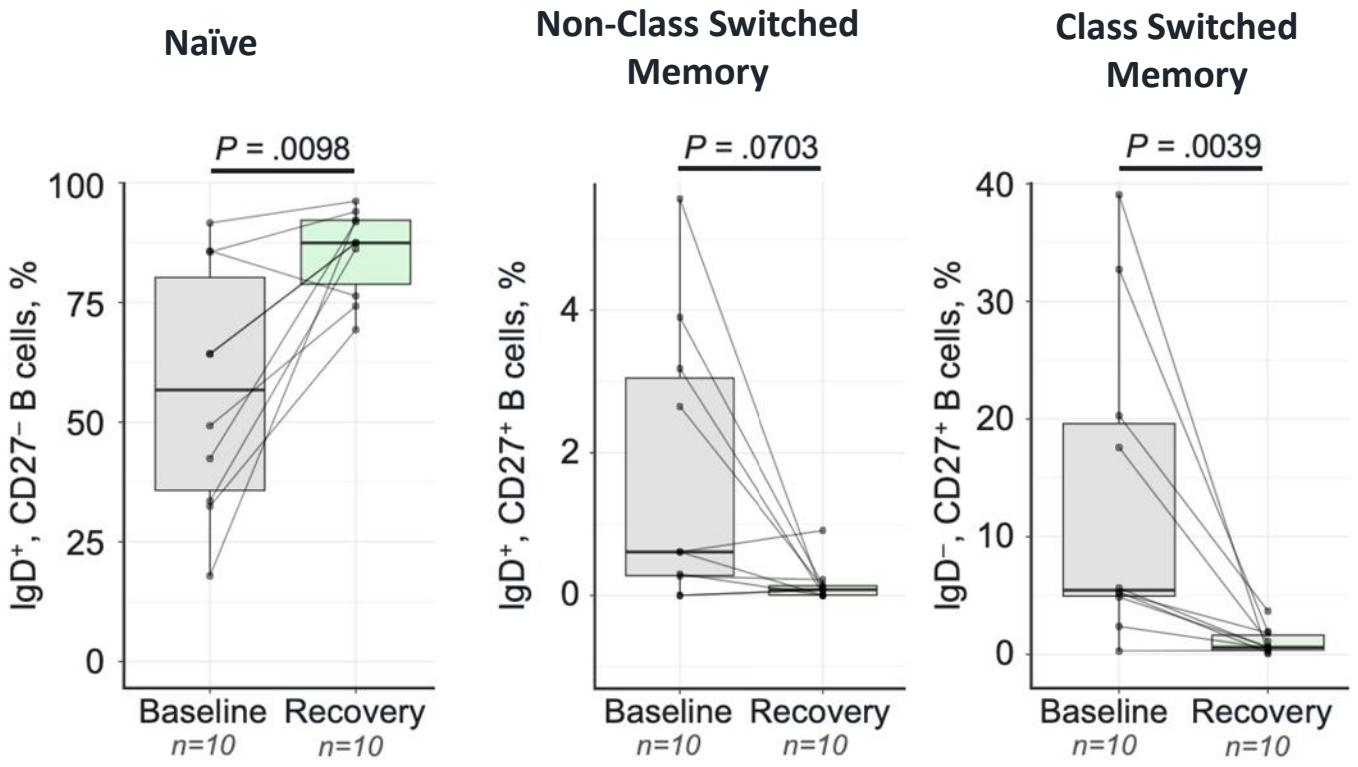
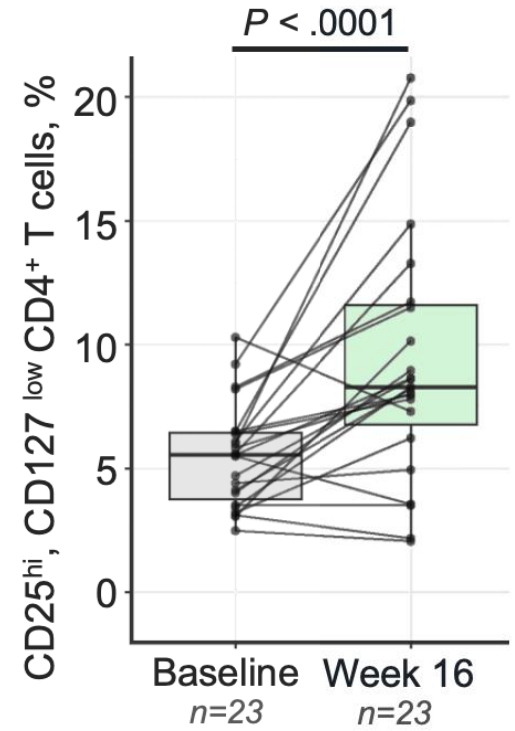
Miv-cel Treatment Induced Markers of Broad Immune Reset

B-Cell Phenotypes



Regulatory T Cells



- Newly emerging B-cell population showed significantly increased naïve phenotype with concomitant decrease in memory phenotype
- Significant increase in regulatory T cells at week 16

Data cutoff: 26Nov2025. Box and whisker plots showing median line (dark line), and interquartile range (box), and min/max (bars).
IgD, immunoglobulin D.

Miv-cel Demonstrated a Well-Tolerated Safety Profile

Treatment-Related Adverse Events, n (%)	N=26
CRS (any Grade)	24 (92)
Grade 1	10 (38)
Grade 2	14 (54)
ICANS (any Grade)	3 (12)
Grade 1	3 (12)
Grade 3/4 neutropenia	4 (15)
Any treatment-related serious AE	3 (12)

- **No high-grade CRS or ICANS observed**
- 4 patients had Grade 3/4 neutropenia, an expected AE with lymphodepletion and CAR T-cell therapies; all events were manageable
- Treatment-related serious AEs occurred in 3 patients; all fully resolved

Data cutoff: 26Nov2025
CRS and ICANS graded using ASTCT criteria; other AEs graded using CTCAE criteria.
AE, adverse event; ASTCT, American Society for Transplantation and Cellular Therapy; CTCAE, Common Terminology Criteria for Adverse Events; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome.

Potential to Achieve Durable, Drug-Free, Disease-Free Remission and Reverse Disability

In KYSA-8 trial, a single dose of miv-cel resulted in:

- Significant, robust, rapid improvements in mobility, disability, stiffness, and hypersensitivity
- 100% free of immunomodulatory or immunosuppressive therapies for SPS as of last follow-up
- A consistent, well-tolerated, and manageable safety profile, with the potential for outpatient administration
- Sustained clinical benefit following deep B-cell depletion and broad immune reset

Natural History Study Contextualizes Transformative Miv-cel Data and its Opportunity to Change the Treatment Paradigm

	Natural History Study *Large, multicenter, retrospective study assessing T25FW in patients with SPS (n=153) over 10-year period*	KYSA-8 SPS Registrational Trial
Patient Population	Earlier in disease course (mRS mean 2.6; 55% immunotherapy at index date*)	More severe (mRS mean 3.6; all have failed immunotherapy)
T25FW	✗ No or minimal improvement†	✓ **46%** improvement at 16 weeks, sustained at 24 weeks
Walking Aid Use	↗ 73% increase over average 5 years	↘ **67%** decrease at 16 weeks
mRS score	✗ No improvement	✓ Improvement in disability
Immunotherapy Use	↗ 81% had immunotherapy by last datapoint (47% increased usage)	↘ No immunotherapy after single dose of miv-cel

mRS, Modified Rankin Score; T25FW, Timed 25-foot Walk

Newsome SD, et al. Presented at the 2026 AAN Annual Meeting [abstract 966].

*Index date is the date of the first T25FW assessment. †Over average ~5 years.

Potential for Miv-cel to Quickly Set a New Treatment Standard in SPS with ~2.0 to 2.5k Immediately Addressable Patients at Launch

~6k

U.S. Diagnosed SPS Patients[1,2]

Miv-cel Addressable Market[2,3]

Immediately Addressable Market at Launch

~2.0 to 2.5k Patients

30-40% of total diagnosed

Patients treated with off-label immunotherapy

Total Miv-cel Addressable Market

~5.5k Patients

90% of total diagnosed

Patients treated with symptomatic therapies

Immunotherapy defined as off-label immunosuppressants (e.g., prednisone), rituximab and/or intravenous immunoglobulin.

1. Crane PD, et al. *Neurology*. 2024;103(12):e210078. 2. Analysis of 2024 Komodo U.S. Claims Data. 3. Kyverna Patient Journey and Demand Study (data on file).

SPS Treaters Show Strong Enthusiasm for Early Adoption of Miv-cel

Survey of 20 high volume SPS treaters in U.S.

Product profile based on miv-cel topline data

80% view efficacy data and one-time treatment as key attributes

90% view profile as compelling versus current treatment options

85% would use miv-cel for moderate-to-severe patients at launch

Source: February 2025 Demand and Patient Journey Research; February 2026 Demand Survey.

Focused Launch Strategy Targets ~10 High-Value SPS Centers

✓ **SPS Leadership**	• Thought leaders / high-volume treaters • Institutional support for miv-cel
✓ **Addressable Patients**	• Existing patients ready at center • Strong referral network
✓ **CAR T Expertise**	• Commercial CAR T experience • Accreditation
✓ **Economic Potential**	• Robust inpatient and outpatient models • Commercial payer and Medicare dynamics

Meaningful Portion of Immediately Addressable Patients at ~10 Centers

Flexible Manufacturing Model to Support Scalable Commercial Growth

- **Dual-source** U.S. manufacturing strategy for miv-cel
- Current capacity **fully supports clinical demand and SPS commercial launch**
- **Additional expansion capacity** available to support MG launch
- **>98% manufacturing success rate** driven by robust process, quality systems, and technical expertise
- Miv-cel cost of goods supports potential for **biologics-like margins**

elevatebio®

Minaris Advanced Therapies

kyverna®

Generalized Myasthenia Gravis (gMG)

Despite Available Treatment Options, High Disease Burden Remains in Generalized Myasthenia Gravis

- gMG is a B-cell and antibody-mediated neuromuscular autoimmune disease that causes fluctuating muscle weakness and fatigue[1,2]

Novel therapies are needed that minimize or eliminate symptoms of disease while reducing risks associated with chronic immunosuppression

Current State of Treatment for Patients With gMG

- Inadequate symptom control[3,4]
- Few reach minimal symptom expression (MSE)[1,5-6]
- Majority require ongoing immunosuppressant therapy[1-4]
- Costly and chronic treatment options[1,7]

1. Howard Jr JF, et al. *Lancet Neurol*. 2021;20(7):526-536. 2. Vu T, et al. *NEJM Evid*. 2022;1(5):EVIDoa2100066. 3. DeHart-McCoyle M, et al. BMJ Med. 2023;2(1):e000241. 4. Dewilde S, et al. *BMJ Open*. 2023;13(1):e066445. 5. AstraZeneca. ULTOMIRIS® efficacy data from CHAMPION-MG. https://ultomirishcp.com/gmg/efficacy. Accessed 20 Aug 2025. 6. Vu T, et al. AAN 2025. S34.002. 7. Data on File, Kyverna Therapeutics.

Potential to Change the gMG Treatment Paradigm by Delivering Durable, Drug-Free, Disease-Free Remission

In KYSA-6 trial, a single dose of miv-cel resulted in:

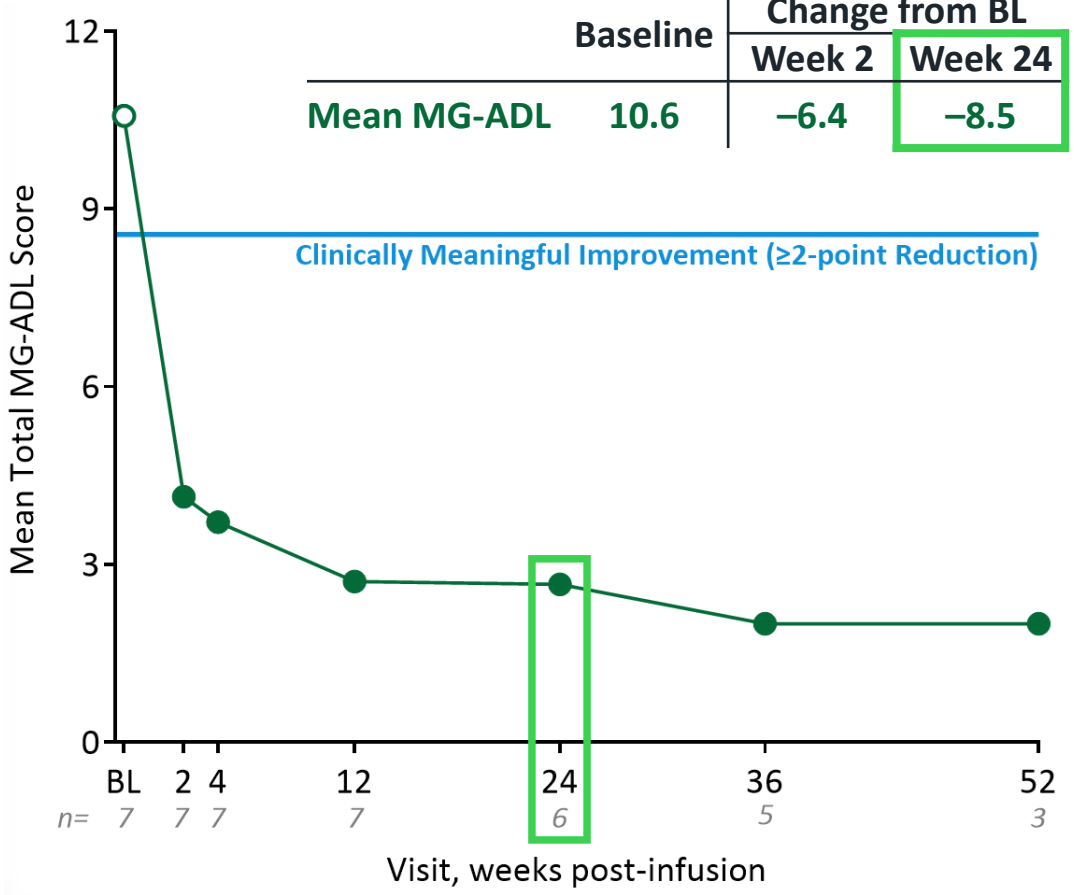
- Robust, rapid, and sustained improvements regardless of prior biologic exposure
- 100% free of immunotherapies, including NSISTs, high-dose steroids (>10 mg), and FcRn and complement inhibitors up to 24 weeks
- Consistent, well-tolerated, and manageable safety profile with no high-grade CRS or ICANS
- Evidence of immune reset and preserved humoral immunity

CRS, cytokine release syndrome; FcRn, neonatal fragment crystallizable receptor; ICANS, immune effector cell-associated neurotoxicity syndrome; NSIST, nonsteroidal immunosuppressive therapy.

Miv-cel Demonstrated Rapid and Robust Reductions in MG-ADL and QMG Sustained Out to 52 Weeks

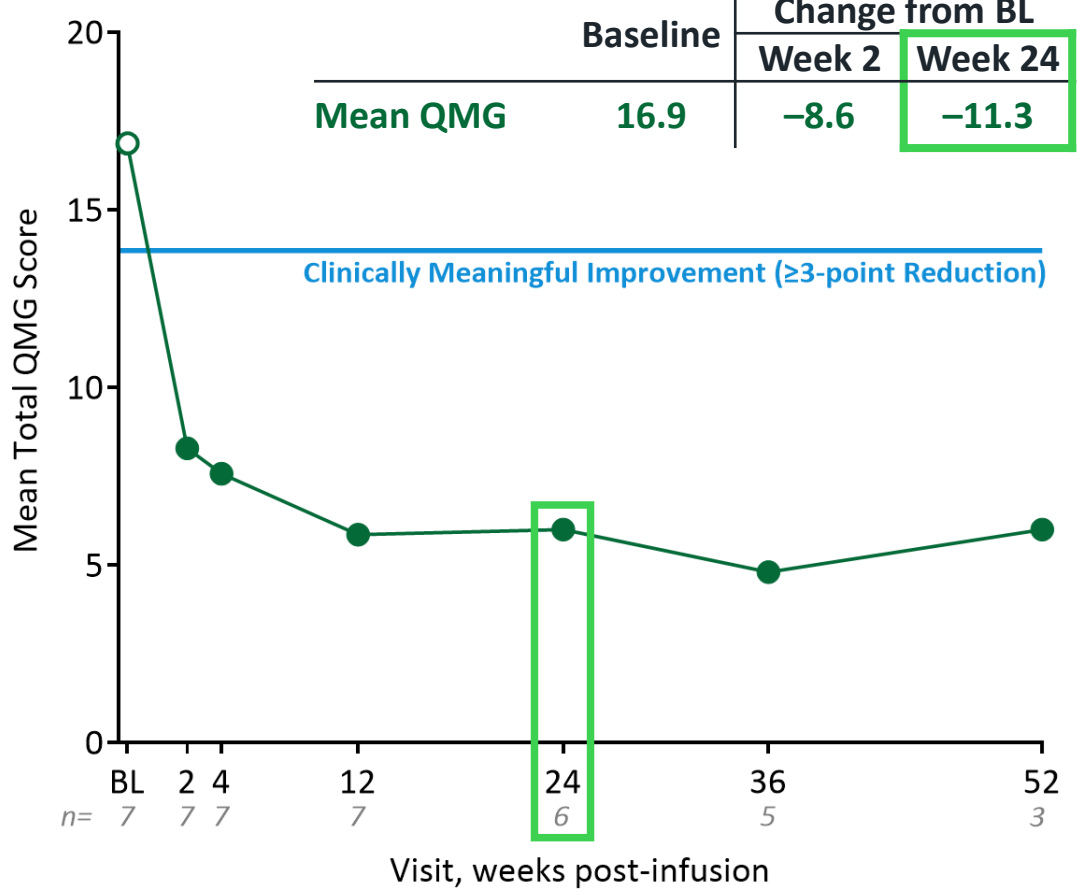
MG-ADL score

	Baseline	Change from BL	
		Week 2	Week 24
Mean MG-ADL	10.6	–6.4	–8.5



QMG score

	Baseline	Change from BL	
		Week 2	Week 24
Mean QMG	16.9	–8.6	–11.3



Data cutoff: February 25, 2026.
BL, baseline; MG-ADL, myasthenia gravis activities of daily living; QMG, quantitative myasthenia gravis.

After a Single Dose of Miv-cel, Patients Achieved Substantial, Clinically Meaningful Reductions in MG Outcome Scores and Treatment Burden

Substantially improved clinical outcomes

MG-ADL

100% had clinically meaningful response
(≥2-point reduction vs baseline)

100% were responders
(≥3-point reduction vs baseline)

57% reached MSE at last follow-up
(MG-ADL score of 0-1)

QMG

100% had clinically meaningful response
(≥3-point reduction vs baseline)

MGC

100% had clinically meaningful response
(≥3-point reduction vs baseline)
–16.0 mean reduction at 24 weeks

Substantially reduced MG treatment burden

100% free of immunotherapies, including NSISTs, high-dose steroids (>10 mg), and FcRn and complement inhibitors up to 24 weeks
6 of 7 patients remained free of these agents at last follow-up

Data cutoff: February 25, 2026.
BL, baseline; FcRn, neonatal fragment crystallizable receptor; MG-ADL, myasthenia gravis activities of daily living; MGC, Myasthenia Gravis Composite; MSE, minimal symptom expression; NSIST, nonsteroidal immunosuppressive therapy; QMG, quantitative myasthenia gravis.

Miv-cel Demonstrated a Well-Tolerated Safety Profile

Treatment-related AEs, n (%)	Patients (n=7)
CRS (any grade)	7 (100)
Grade 1	5 (71)
Grade 2	2 (29)
ICANS (any grade)	0 (0)
Grade 3/4 events	3 (43)
Neutropenia	2 (29)
Lymphopenia	1 (14)
Lymphocyte count decreased	1 (14)
SAE (any grade)[a]	0 (0)

- **No high-grade CRS and no ICANS observed**
- CRS was low-grade and manageable in all patients
  - 5 of 7 patients only experienced fever (grade 1 CRS)
- 2 patients with Grade 3/4 treatment-related AEs of neutropenia, an expected AE with lymphodepletion and CAR T-cell therapies; neither was associated with infections; all events were manageable and fully resolved

Data cutoff: February 25, 2026.

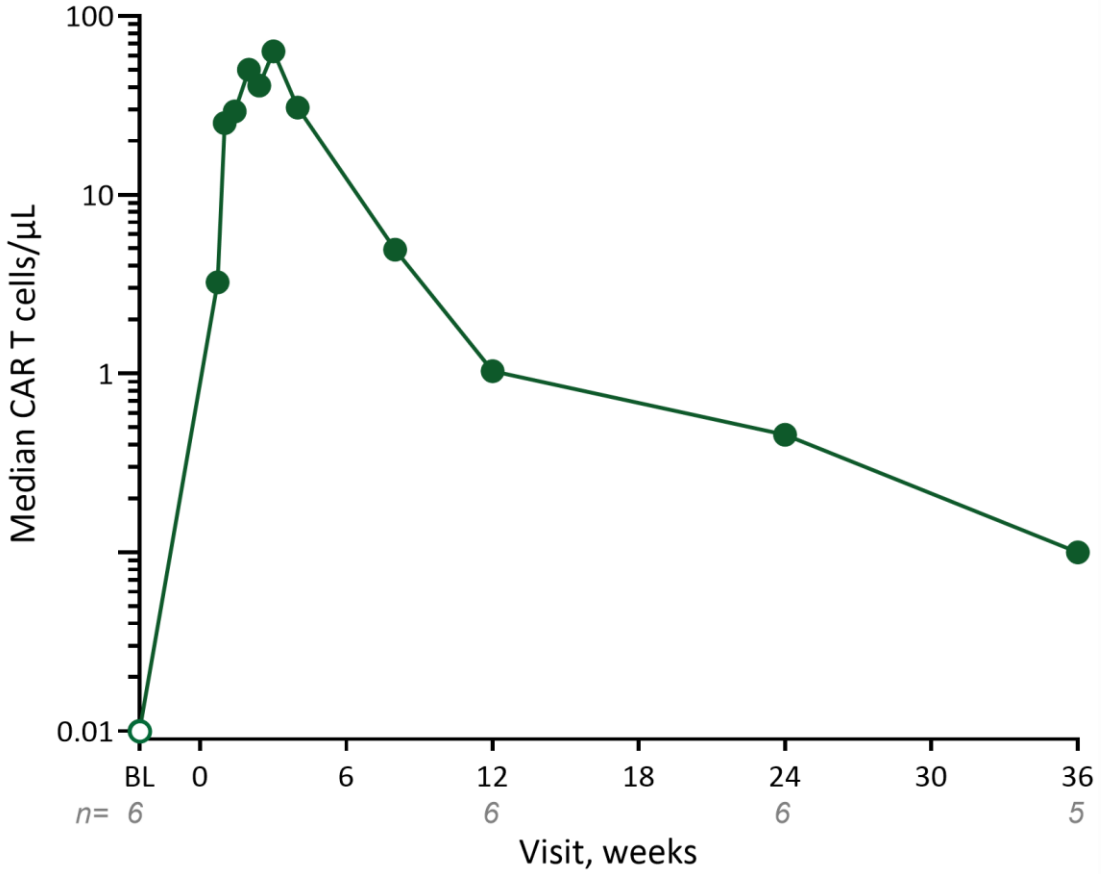
[a]After the prior data cut (October 3, 2025), a previously reported treatment-related SAE was reclassified by the Investigator as 'not serious', reflecting his clinical assessment of the AE per protocol-defined seriousness criteria.

CRS and ICANS graded using ASTCT criteria; other AEs graded using CTCAE criteria.

AE, adverse event; ASTCT, American Society for Transplantation and Cellular Therapy; CTCAE, Common Terminology Criteria for Adverse Events; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome; SAE, serious adverse event.

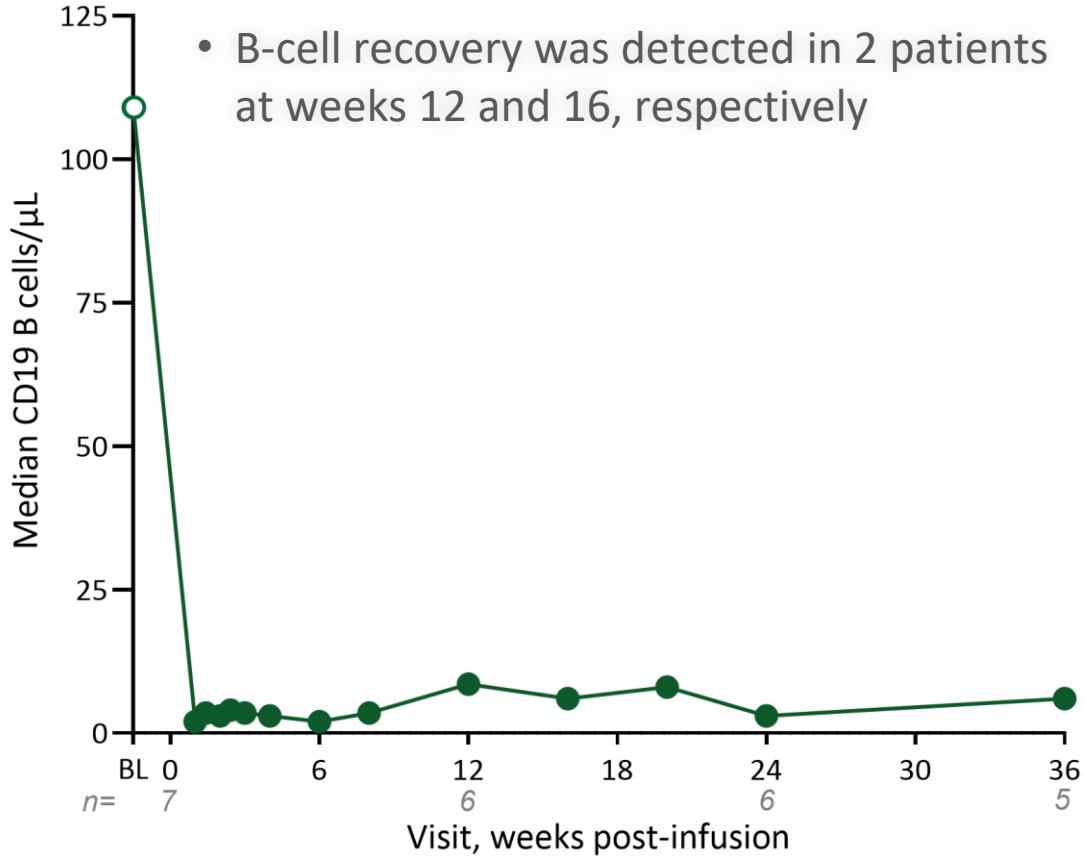
Robust CAR T-cell Expansion Led to Deep B-cell Depletion

Robust CAR T-cell expansion



Deep B-cell depletion

- B-cell recovery was detected in 2 patients at weeks 12 and 16, respectively

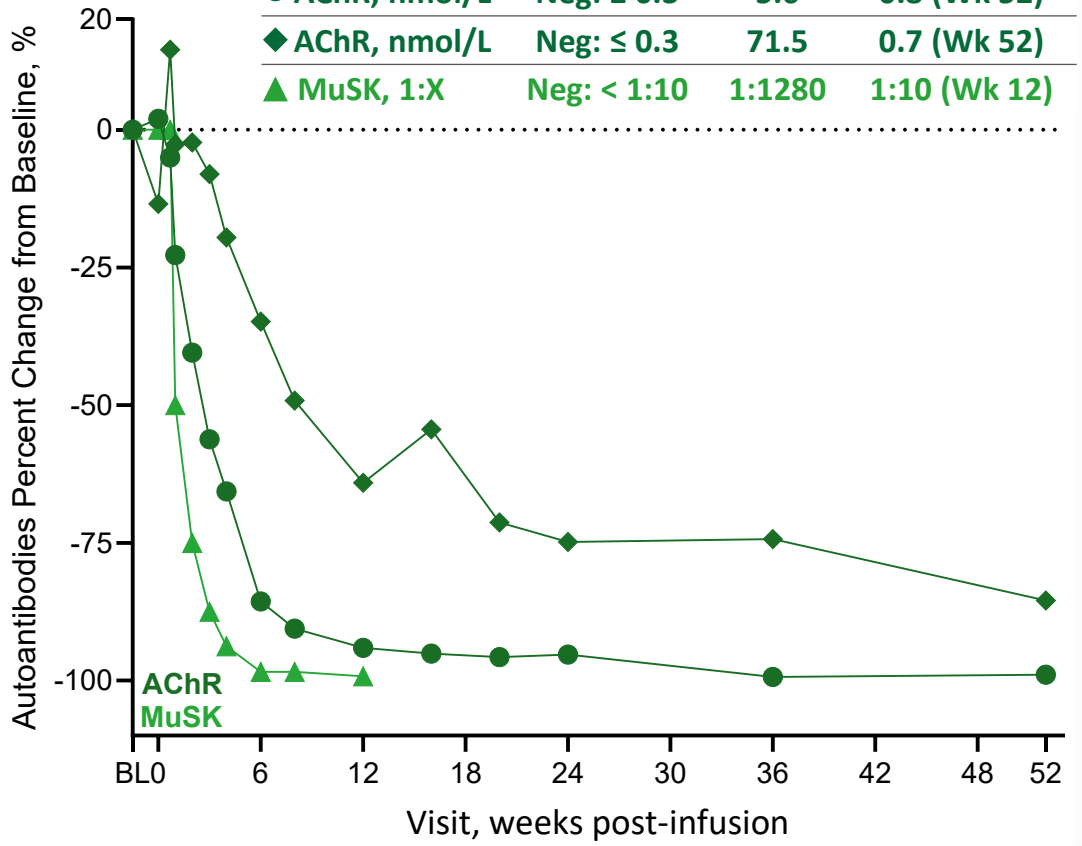


Data cutoff: February 25, 2026.
BL, baseline.

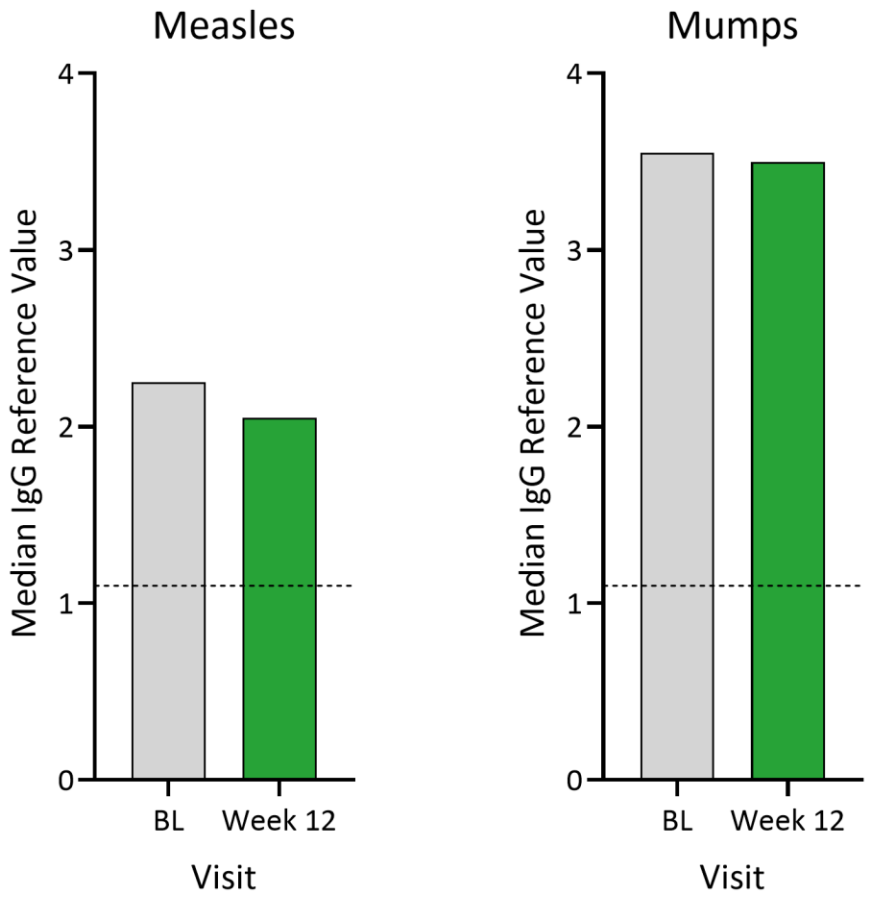
Miv-cel Reduced Autoantibody Levels While Preserving Humoral Immune Responses

Reduction of autoantibodies

Autoantibody	Ref Range	BL	Last visit (Wk)
● AChR, nmol/L	Neg: ≤ 0.3	5.6	0.8 (Wk 52)
◆ AChR, nmol/L	Neg: ≤ 0.3	71.5	0.7 (Wk 52)
▲ MuSK, 1:X	Neg: < 1:10	1:1280	1:10 (Wk 12)



Preservation of humoral immunity



Data cutoff: February 25, 2026. Humoral immunity data was not available for patient 7; dashed line on humoral immunity graph shows the threshold above which indicates prior exposure or vaccination.
AChR, acetylcholine receptor; BL, baseline; IgG, immunoglobulin G; MuSK, muscle-specific kinase; neg, negative value; Ref, reference; Wk, week.

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Single Dose Miv-cel Achieved Unprecedented gMG Clinical Outcomes

All other therapies require chronic background immunotherapies

		Approved			Investigational*	
		FcRn Inhibitor[1] *VYVGART®*	**Complement Inhibitor[2,3]** *ULTOMIRIS®*	**CD19 mAb[4]** *UPLIZNA®*	**BCMA mRNA CAR T[5]** *Descartes-08*	**Miv-cel CD19 CAR T** (KYSA-6, n=6)
Primary Endpoint		4 weeks	6 months	6 months	3 months	**6 months**
Depth of Response *Mean reduction from baseline to primary endpoint (non-placebo adjusted)*	**MG-ADL Reduction**	~4.6	3.1	4.2	4.1	**8.5**
	QMG Reduction	~6.2	2.8	4.8	3.9	**11.3**
% Responders *Patients with ≥3-point MG-ADL improvement from baseline to primary endpoint (non-placebo adjusted)*		~73%	~57%	69%	64%	**100%**
Achieve Minimal Symptom Expression (MSE) *% of patients achieving MG-ADL of 0 or 1*		40%	43%	Not reported	33%	**57%**
		At any point before primary endpoint			*6 months to 1 year*	*At any point before primary endpoint*

Note: These observations are derived from separate clinical settings; comparisons across trials are not based on head-to-head studies.

BCMA, b-cell maturation antigen; FcRn, neonatal fragment crystallizable receptor; mAb, monoclonal antibody; MG-ADL, myasthenia gravis activities of daily living; mRNA, messenger RNA; QMG, quantitative myasthenia gravis score.
*Under investigation in gMG.

1. Howard Jr JF, et al. *Lancet Neurol.* 2021;20(7):526-536. 2. Vu T, et al. *NEJM Evid*. 2022;1(5):EVIDoa2100066. 3. AstraZeneca. ULTOMIRIS® efficacy data from CHAMPION-MG. https://ultomirishcp.com/gmg/efficacy. Accessed 20 Aug 2025.
4. Nowak RJ, et al. *N Engl J Med.* 2025;392(23):2309-2320. 5. Vu T, et al. *Nat Med.* 2026;32:1131-1141.

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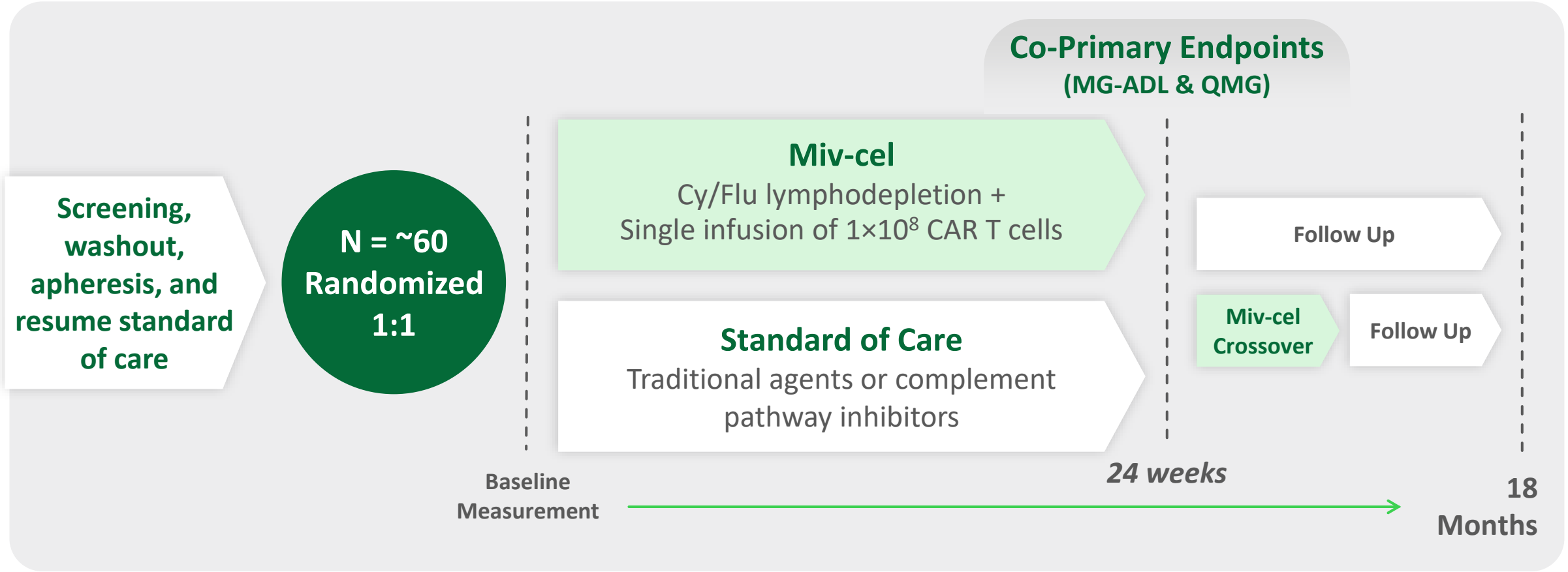
Phase 2 Trial Results Further Derisk Ongoing Phase 3 Registrational Trial

First Patient Enrolled in 2025; 15 Sites Activated Globally

~60-patient, global, open-label, randomized controlled Phase 2/3 trial with crossover design



Standard of care may consist of traditional agents (e.g., prednisone, azathioprine, mycophenolate, methotrexate, chronic IVIg/PLEX) or complement pathway inhibitors (e.g., eculizumab, ravulizumab). Anti-CD20 or -CD19 monoclonal antibodies or FcRn inhibitors not allowed as defined in inclusion criteria.

Cy/Flu, cyclophosphamide and fludarabine; FcRn, neonatal fragment crystallizable receptor; IVIg, intravenous immunoglobulin; MG-ADL, myasthenia gravis activities of daily living; PLEX, plasma exchange; QMG, quantitative myasthenia gravis score.

Key Criteria and Endpoints for Miv-cel Registrational Trial in gMG

Key Inclusion Criteria

- Age 18 to 75 years
- Diagnosis of generalized MG, Class II-IV per MGFA criteria
- Autoantibodies to AChR or MuSK
- MG-ADL ≥6; QMG ≥11
- Failed ≥1 immunosuppressive therapy and required chronic plasmapheresis or chronic use of IVIG; or failed ≥2 prior immunosuppressive/ immunomodulatory therapies

Co-Primary Endpoints

- Change from baseline in MG-ADL and QMG score at 24 weeks compared to SOC

Secondary Endpoints

- MGC change from baseline at 24 weeks compared to SOC
- Proportion of patients with a ≥3 point improvement from baseline in MG-ADL at 24 week compared to SOC
- Proportion of patients with MSE at 24 weeks compared to SOC

Exploratory Endpoints

- Endpoints evaluating the durability of efficacy including change from baseline in MG-ADL, QMG, and MGC at weeks 52 and 78
- Use of immunosuppressant therapy over time

AChR, acetylcholine receptor; IVIG, intravenous immunoglobulin; MG-ADL, myasthenia gravis activities of daily living; MGC, myasthenia gravis composite; MGFA, The Myasthenia Gravis Foundation of America; MSE, minimal symptom expression; MuSK, muscle-specific tyrosine kinase; QMG, quantitative myasthenia gravis score; SOC, standard of care.

Miv-cel Potential to Change the Treatment Paradigm in gMG by Delivering Durable, Drug-free, Disease-free Remission with Single Dose

~80k

U.S. Diagnosed gMG Patients[1,2]

Miv-cel Addressable Market[1,3]

Initial Priority

~12k Patients

15% of total diagnosed

Patients with inadequate response to ≥ 1 biologic*

Total Miv-cel Addressable Market

~40k Patients

50% of total diagnosed

Patients with inadequate response to immunosuppressants

gMG, generalized myasthenia gravis.

*Biologics defined as immunomodulatory therapies including FcRN blockers, complement inhibitors, rituximab or chronic IVIg use.

1. Rodriguez E, et al. *Muscle. Nerve*. 2024;69(2):166-171. 2. Hendricks TM, et al. *Am J Opthamol*. 2019; 205:99-105. 3. Clarivate DRG Report (2024).

SPS Lays Foundation for Rapid and Efficient Market Entry in gMG

SPS	gMG
Target ~10 centers at launch	Expand to ~50-75 total centers at peak
• Meaningful portion of SPS patients at approximately 10 centers • High-volume SPS treaters, including clinical trial sites • Continue to activate more centers post SPS launch	• MG centers of excellence and high-volume treaters • MG-focused centers that also treat SPS patients • Centers with existing referral networks for patients

All Targeted Centers Have CAR T Experience

Additional Opportunities

Progressive Multiple Sclerosis (PMS): Encouraging IIT Data Highlight Broad Opportunity with Miv-cel in Neuroimmunology Diseases

Phase 1 IIT Studies at Stanford (N=6) and UCSF (N=2)

Stanford uses alternative bendamustine lymphodepletion regimen

Biological Activity

- **Robust CAR T cell expansion** in blood and penetration into CNS
- Reconstitution of naïve B cells supportive of **immune reset**

Efficacy

- All patients with available data **showed improved or stable EDSS**
- All patients remained **off other immunotherapies**
- **Improvement in fatigue scores** from baseline in all patients with available data

Safety

- Reinforces **established tolerability profile**
- **No high-grade CRS/ICANS**

Unprecedented data may set a new standard in the treatment of progressive MS, as current therapies aim to only slow or halt disease progression

Data from 8 patients treated at dose levels 33M (n=3) and 100M (n=5) CAR+ T cells

EDSS, expanded disability status scale scores; UCSF, University of California, San Francisco, Weill Institute for Neurosciences; CNS, central nervous system; CRS, cytokine release syndrome; ICANS, immune effector cell associated neurotoxicity syndrome.

Dunn J, et al. Poster Presentation at ACTRIMS 2026. ID# P112. Dunn, J, et al. Presentation at Stanford Blood and Marrow Transplantation and Cellular Therapy Symposium May 2026. Galleta K, et al. Poster Presentation at ACTRIMS 2026. ID#121 O027.

Rheumatoid Arthritis: IIT Data of KYV-101 Highlights Promising Safety and Efficacy in Difficult-to-Treat ACPA Positive Rheumatoid Arthritis Patients

Initial data on the first 6 patients treated in Phase 1/2 study at Charité, University of Berlin; *Phase 2 study is fully enrolled*

Biological Activity

- **Rapid CAR T expansion; B-cell depletion** in all patients
- **Profound reductions in pathogenic ACPA**, and in RF-IgM titers were also observed

Efficacy

- With follow up ranging from 28 to 175 days, 4 out of 6 patients met the **ACR20 response**
- Two of these patients also achieved an **ACR50** response (meeting 50% improvement thresholds)

Safety

- Reinforces **established tolerability profile**
- **No high-grade CRS/ICANS**

Profound reduction in disease-associated autoantibodies and impact on disease activity achieved patients with heavily pre-treated, refractory RA

ACPA, anti-citrullinated protein antibody; CRS, Cytokine Release Syndrome; ICANS, Immune Cell Associated Neurotoxicity Syndrome; RF-IgM, heumatoid Factor – Immunoglobulin M; ACR20, American College of Rheumatology 20% improvement criteria; ACR50, American College of Rheumatology 50% improvement criteria.

KYV-102: Transforming the Next Generation of CAR T Patient Delivery

No Apheresis, No/Low Lymphodepletion, Reduces Costs, Improves Patient Access

Miv-cel

- CD19 CAR optimal for autoimmune
- 8-9 day culture time
- Begins with apheresis

KYV-102

- Utilizes same CAR construct as Miv-cel
- <3-day culture time
- Begins with whole blood – no need for apheresis

TARGETED BENEFITS

- Improve patient experience
- Unlock system capacity and accessibility
- Reduce manufacturing turnaround time and costs
- Increased scalability
- Proprietary process with filed patent families

KYV-102 IND Application Accepted

CAR, chimeric antigen receptor; CD, cluster of differentiation; IND; investigational new drug application.

Anaya D, et al. bioRxiv. 2024;doi: https://doi.org/10.1101/2024.01.24.576713.

Strong Financial Position to Support Key Inflection Points for SPS and gMG

Cash runway into 2028
expected to support anticipated SPS commercial launch and Phase 3 gMG trial

Strong Cash Position and Financial Flexibility

- $236M cash balance as of 3/31/26
- Up to $150M Oxford loan facility*

BLA, Biologics License Application.
*The Company has drawn $25M from the facility, with an additional $35M currently available for draw.

Kyverna Is Poised to Deliver on the Curative Potential of CAR T for Autoimmune Patients

Unique CAR Construct Optimal for Autoimmune

>100 patients treated with Miv-cel

Derisked Opportunity with Positive Data and Near-Term Catalysts

Potential to be First-in-Class with SPS BLA Underway

Experienced Cell Therapy Leadership & Strong Financial Position

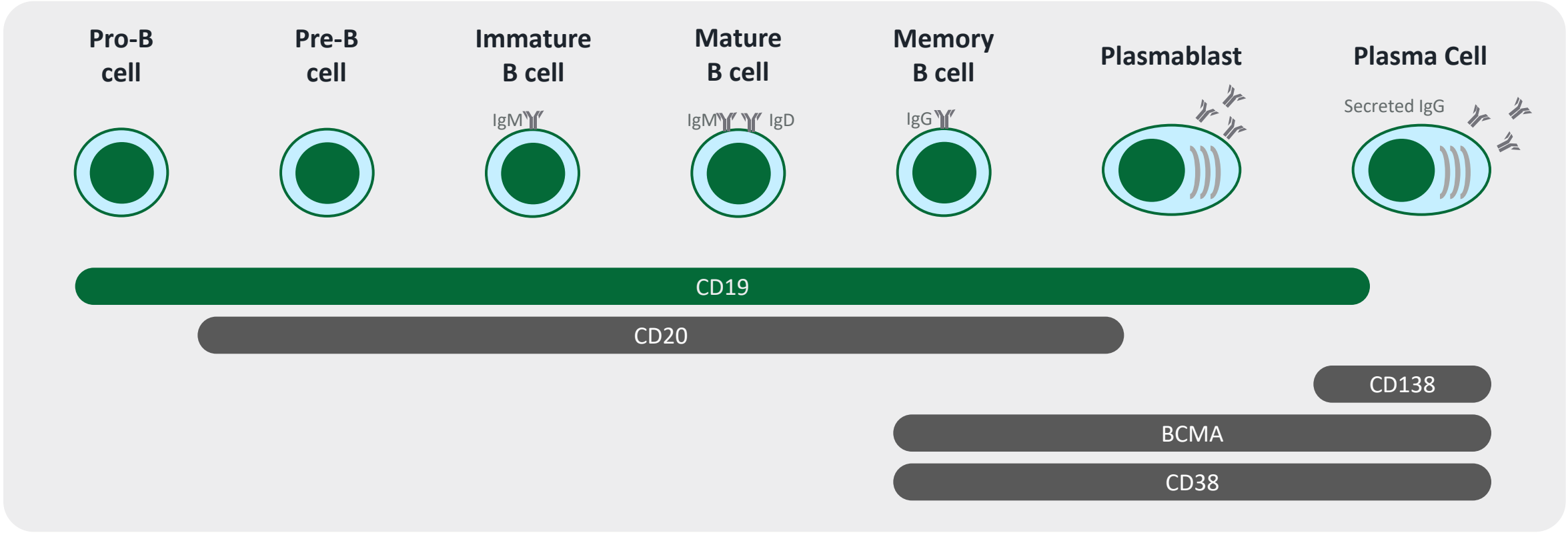
kyverna™

BLA, biologics license application; CAR T, chimeric antigen receptor T-cell therapy.

Appendix

Roger
MG Warrior

Choosing the Right Target for Autoimmune Diseases: CD19

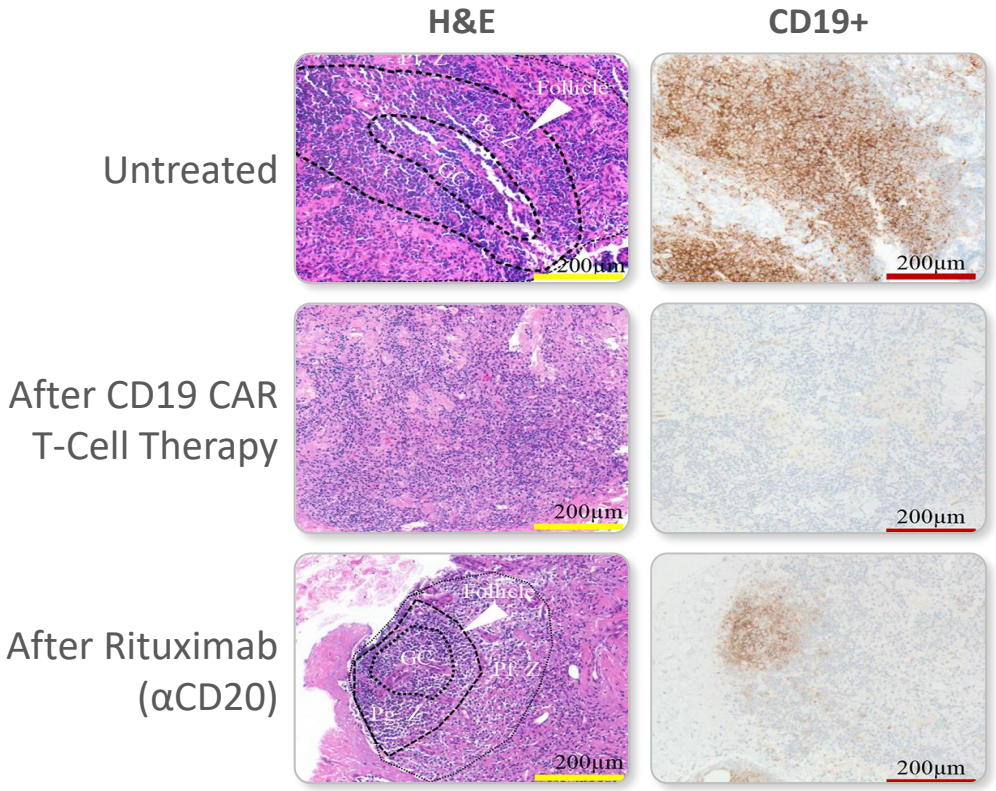


CD19-targeted depletion of B cells eliminates the broadest range of B cell subsets while sparing long-lived plasma cells, the reservoir of established humoral immunity

BCMA, b-cell maturation antigen; CD, cluster of differentiation; Ig, immunoglobulin G.
Adapted from Lejeune et al, Front Immunol 2020;11:762.

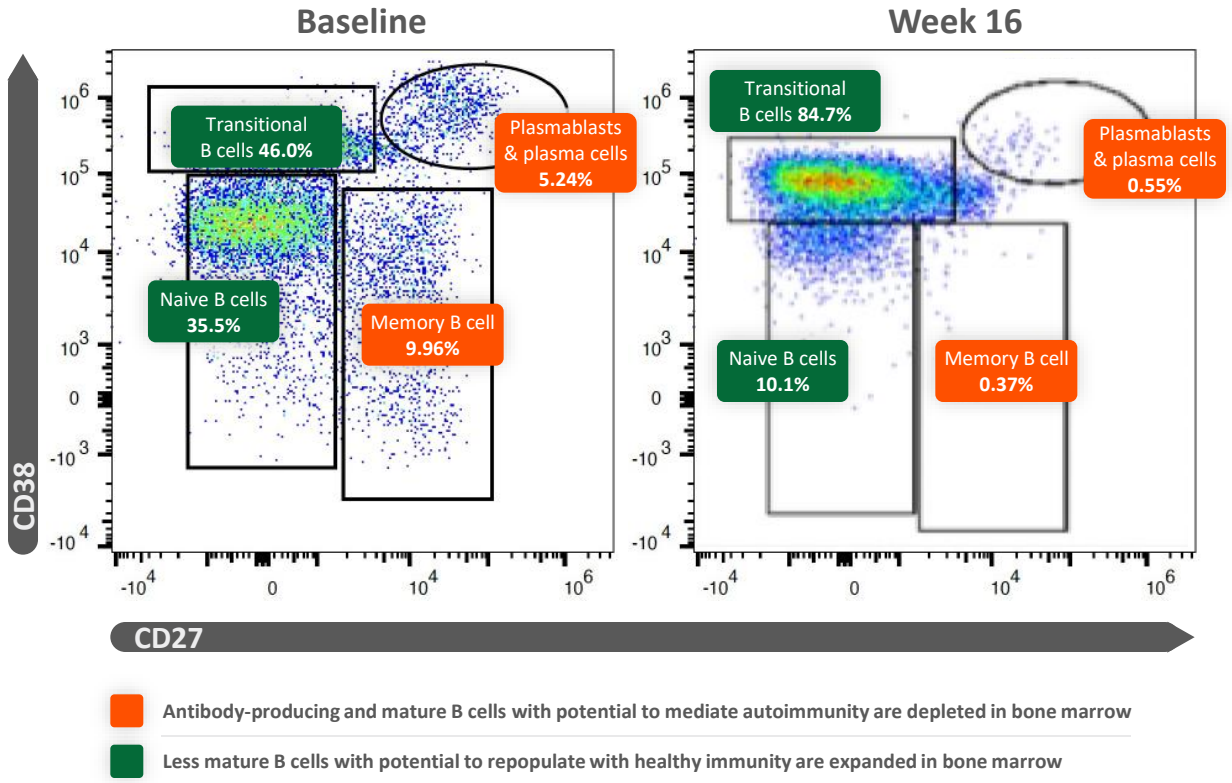
Deep B-Cell Depletion Following anti-CD19 CAR T Cell Therapy

Deep B-cell depletion in lymph nodes



Tur C, et al. *Ann Rheum Dis.* 2024;0:1–8.

Miv-cel elicits B-cell reset in bone marrow



Adapted from Albach FN, et al. Rheumatology. 2025; online ahead of print

CAR, chimeric antigen receptor; CD, cluster of differentiation; H&E, hematoxylin and eosin stain.

Thoughtful Clinical Development Strategy

Ongoing | **Not Dosing New Patients**

KYSA
Kyverna-Sponsored Clinical Trials

- Registrational intent
- Milestone guidance provided

Investigator-Initiated Trials (IITs)
Single-center trials at leading academic centers

- Indication exploration
- Academic partnerships

Compassionate Use
"Individueller Heilversuch" (IH) in Germany*

- 40 patients
- Provided signal-seeking dataset
- Safety database to be used to support BLA filing(s)
- Published as case reports

*Similar to expanded access or compassionate use in the United States, "IH" or "Individueller Heilversuch," also known as "named-patient basis access," is a regulatory scheme in Germany that allows for the supply of a treatment that has not received marketing authorization for an individual patient in response to a request by the treating physician on behalf of the named patient. This option can be pursued for the expected benefit of a patient who has exhausted all available treatment options, under the discretion of the treating physician, with the patient's consent.

Compassionate Use Pathway: Early Clinical Experience Anchors Development Strategy and Supports Differentiated Safety Profile

Available Results in 40 Patients Provide Foundation for Safety Database

Indications

Neuroimmunology Diseases:	22 Patients
Rheumatologic Diseases:	16 Patients
Other Indications:	2 Patients

Informed priority indications:

SPS, MG, LN

and future potential indications…

Multiple sclerosis	Systemic sclerosis
NMOSD	Rheumatoid arthritis
CIDP	And Others…

Safety Profile

No high-grade CRS or ICANS observed to date in 40 patients

Grade 1 CRS	Grade 2 CRS	Grade 3-4 CRS	Grade 1 ICANS	Grade 2 ICANS	Grade 3-4 ICANS
23	13	**0**	4	1	**0**

All lower grade CRS and ICANS events were expected, transient and manageable; observed onset during the first 14 days and fully resolved

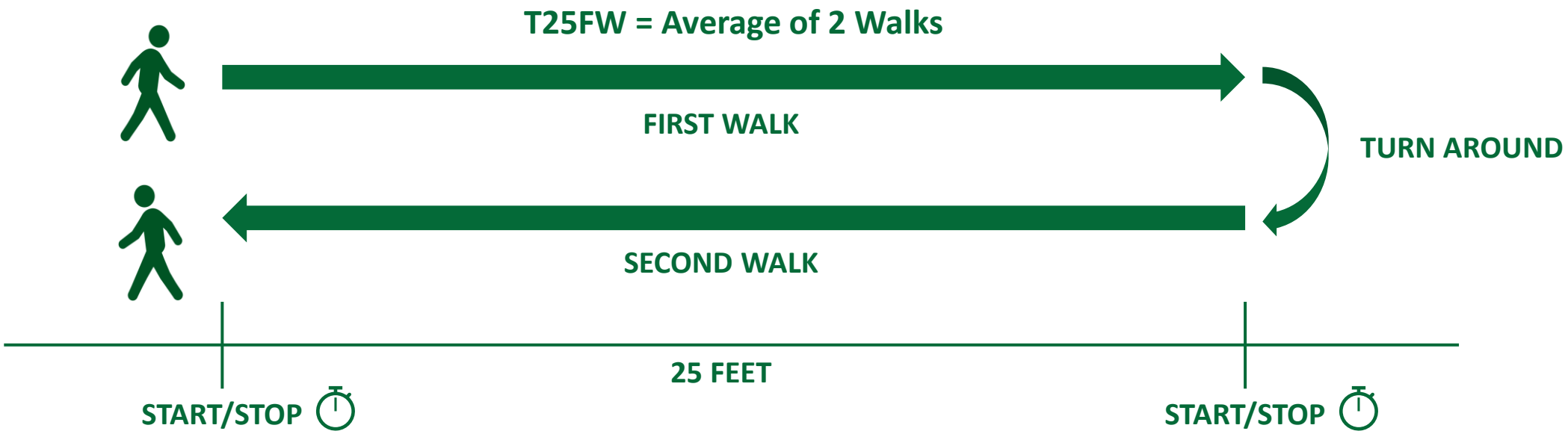
NMOSD, neuromyelitis optica spectrum disorder; CIDP, chronic inflammatory demyelinating polyradiculoneuropathy; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome.

Primary Endpoint Outcome Assesses Impact of SPS on Walking Ability

Timed 25-Foot Walk (T25FW)

- Validated tool to assess walking ability[1]
- Used to evaluate stiffness and loss of mobility in SPS[2]
- Healthy adults can perform the T25FW in ~4-5 seconds[3]

20% improvement considered clinically meaningful[1]



1. Hobart J, et al. *Neurology*. 2013; 80: 1509-1517. 2. Newsome SD and Johnson T J. *Neuroimmunol*. 2022;369:577915. 3. Motl RW, et al. *Mult Scler J*. 2017; 23(5): 704-710.

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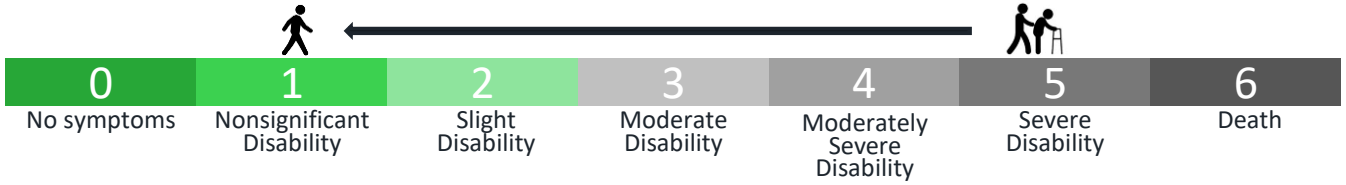
Secondary Endpoint Outcomes Assess Extent of Disability and SPS-Specific Symptoms

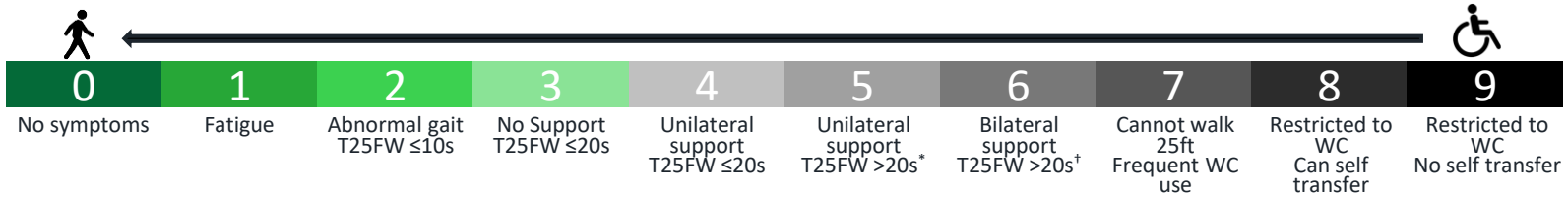
Modified Rankin Scale (mRS)

Degree of disability[1]



Hauser Ambulation Index (HAI)

Time and degree of assistance to complete T25FW[2]



Distribution-of-Stiffness Index (DSI)

Muscle stiffness across body regions[3,4]

1 point for each stiff body region (0-6)

Heightened Sensitivity Scale (HSS)

Number of triggers of muscle spasms[3,4]

1 point for each trigger/stimulus (1-7)

T25FW, timed 25-foot walk; WC, wheelchair.

1. van Swietin JC, et al. *Stroke*. 1988; 19(5): 604-607. 2. Hauser SL, et al. *New Engl J Med*. 1983; 308(4): 173-180. 3. Dalakas MC, et al. *N Engl J Med*. 2001; 345(26): 1870-1876. 4. Dalakas MC, et al. *Ann Neurol*. 2017; 82(2): 271-277.

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Miv-cel for gMG: Upstream Targeting at the Disease Source

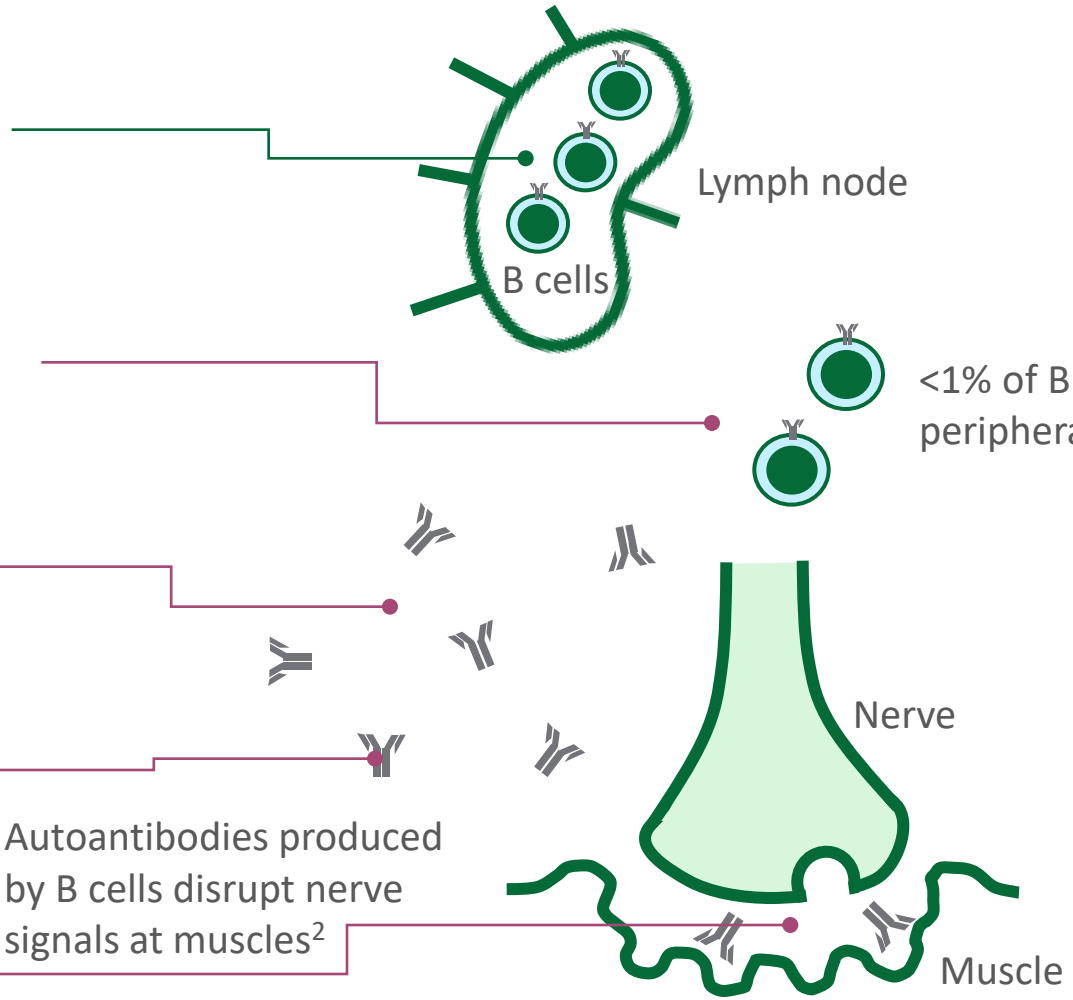
Miv-cel deeply depletes B cells including in tissues[1]

B-cell targeting mAbs cannot fully penetrate tissues and primarily target peripheral blood B cells[1]

FcRn inhibitors transiently reduce autoantibody accumulation[2]

Complement inhibitors transiently inhibit autoantibody immune activity[2]

Acetylcholinesterase inhibitors increase concentration of nerve signaling molecules[3]



Disease Source in Lymphoid Tissues

Upstream

Downstream

Disease Symptoms at Muscles

mAb, monoclonal antibody; FcRn, neonatal fragment crystallizable receptor.

1. Tur C, et al. *Ann Rheum Dis*. 2025;84(1):106-114. 2. DeHart-McCoyle M, et al. *BMJ Med*. 2023;2(1):E241. 3. Myasthenia Gravis. NIH – NINDS. https://www.ninds.nih.gov/health-information/disorders/myasthenia-gravis.
4 Sender R, et al. *Proc. Natl. Acad. Sci. U.S.A.* 2023;120 (44) e2308511120.

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Leading Approved and Investigational Therapies in gMG Have High Administration Burden, Requiring Frequent and Chronic Dosing

Summary of Dosing Schedules in gMG

		Year 1	Year 2	Year 3	Total Doses
Approved	**FcRn Inhibitor**[1,2] VYVGART®	4 weekly doses and 4 weeks off†			72
Approved	**Complement Inhibitor**[3] ULTOMIRIS®	First doses 2 weeks apart	Maintenance dose every 8 weeks		19
Investigational*	**CD19 mAb**[4] UPLIZNA®	First doses 2 weeks apart	Maintenance dose every 6 months		8
Investigational*	**BCMA mRNA CAR T**[5-7] Descartes-08	6 Doses	43% of patients return to baseline and re-dosed‡		6-12

FcRn, neonatal fragment crystallizable receptor; mAb, monoclonal antibody; mRNA, messenger RNA; gMG, generalized myasthenia gravis.
*Under investigation in MG. †Vyvgart allows for flexible cycles; however, real-world evidence published data supports a modal gap between cycles of 4 weeks, particularly in chronic Vyvgart patients. ‡43% of patients (3/7) return to baseline symptom burden and are re-dosed in the Ph2a trial.

1. Howard Jr JF, et al. *Lancet Neurol*. 2021;20(7):526-536. 2. Bhavaraju-Sanka R, et al. MGFA Session at AAN 2024. MG9. 3. Vu T, et al. *NEJM Evid*. 2022;1(5):EVIDoa2100066. 4. Nowak RJ, et al. *N Engl J Med*. 2025;392(23):2309-2320. 5. Vu T, et al. AAN 2025. S34.002. 6. Brunn C. HHC. Wainwright Investor Conference Fireside Chat 20 May 2025. 7. Cartesian. August 2025 Corporate Presentation. https://ir.cartesiantherapeutics.com.

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Focused Pipeline Priorities

Opportunities to Expand into Additional Indications

	Indication	Candidate	Preclinical	Phase 1	Phase 2	Phase 3*	Regulatory Milestone Achieved
2026 Priorities	Stiff Person Syndrome	Miv-cel	KYSA-8		Registrational		RMAT, ODD
	Generalized Myasthenia Gravis	Miv-cel	KYSA-6		Registrational		RMAT, ODD†, FTD
	Rapid Whole Blood Process	KYV-102					
Additional Opportunities	Progressive Multiple Sclerosis	Miv-cel	KYSA-7‡				FTD
	Rheumatoid Arthritis	Miv-cel	IIT				
	Lupus Nephritis	Miv-cel	KYSA-1 & KYSA-3				FTD
	Systemic Sclerosis	Miv-cel	KYSA-5				ODD
	Allogeneic	KYV-201					

RMAT, Regenerative Medicine Advanced Therapy; ODD, Orphan Drug Designation; FTD, Fast Track Designation, IIT, investigator-initiated trial.
Fast track designation does not assure that we will experience a faster development process, regulatory review or regulatory approval process compared to conventional US Food and Drug Administration procedures.
*Phase 3 may not be required if Phase 2 is registrational. †EU & US. ‡ Kyverna is also exploring miv-cel in progressive multiple sclerosis through IITs.

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Working With Leaders and Trailblazing the Autoimmune CAR T Field

Autoimmune CAR-T Milestones

2018 — **Kyverna Founded to Bring CAR T to Autoimmune Disease**
2018

Partnered With NIH to Deliver Miv-cel
2020
NIH
Fully Human CD19

nature medicine
BRUDNO[1]
2020
20 patients with B-cell malignancies treated with Miv-cel CAR

The NEW ENGLAND JOURNAL of MEDICINE
SCHETT[2]
2021
1st autoimmune disease patient treated (lupus nephritis)

1st Company to Dose Autoimmune Patient With Fully Human CD19 CAR T
2023

THE LANCET Neurology
HAGHIKIA[3]
2023
1st neuroinflammatory disease patient treated (Miv-cel in myasthenia gravis)

Differentiated with RMAT and Fast Track Designations
2024

Largest Sponsored-Trial Experience With CAR T in Autoimmunity
2025

Positive Data from First Registrational CAR T Trial for Autoimmunity
2025

2026

Kyverna Milestones

Miv-cel positioned to become the FIRST approved therapy in SPS and CAR T-cell therapy for autoimmune disease

CAR, chimeric antigen receptor; CD, cluster of differentiation; NIH, National Institutes of Health; RMAT, regenerative medicine advanced therapy.

1. Brudno JN, et al. *Nat Med.* 2020;26(2):270-280; 2. Mougiakakos D, et al. *N Engl J Med.* 2021;385(6):567-569; 3. Haghikia A, et al. *Lancet Neurol.* 2023;22(12):1104-1105; 4. Mueller F, et al. *N Engl J Med*. 2024;390(7):687-700.

kyverna

Proven Leadership Team with Significant CAR T and Autoimmune Experience

Leadership Team

Warner Biddle
Chief Executive Officer

Cara Bauer, PhD
Chief Human Resources Officer

Dominic Borie, MD, PhD
Strategic Advisor

Naji Gehchan, MD, MSc, MBA
Chief Medical and Development Officer

Nadia Dac
Chief Commercial Officer

Marc Grasso, M.D.
Chief Financial Officer

Dan Maziasz
Chief Business Officer

Mayo Pujols
Chief Technology Officer

Tracy Rossin
Senior VP, Corporate Affairs, Communications and IR

Board of Directors

Christi Shaw
Executive Chairperson

Mert Aktar
Independent Director

Warner Biddle
Chief Executive Officer

Ian Clark
Independent Director

Fred Cohen, MD
Independent Director

Sravan K. Emany
Independent Director

Andrew Miller, PhD
Independent Director

Beth Seidenberg, MD
Independent Director