Kyverna Presents Longer-Term Phase 2 Data for Miv-cel in Generalized Myasthenia Gravis at AAN, Demonstrating Deep, Durable Responses through 52 Weeks

April 20, 2026

100% of patients achieved rapid, sustained improvements across MG-ADL and QMG at 24 weeks, further increasing confidence in Phase 3 trial

Totality of efficacy and safety data reinforces miv-cel's differentiated and potential best-in-class profile for delivering durable, drug-free, disease-free remission with a single dose

Company to host conference call on Wednesday, April 22, 2026, at 7:00 am ET

EMERYVILLE, Calif., April 20, 2026 (GLOBE NEWSWIRE) -- Kyverna Therapeutics, Inc. (Nasdaq: KYTX), a late-stage clinical biopharmaceutical company focused on developing cell therapies for patients with autoimmune diseases, today announced positive longer-term follow-up data from the Phase 2 portion of its registrational KYSA-6 trial of miv-cel (mivocabtagene autoleucel, KYV-101) in patients with generalized myasthenia gravis (gMG). The data will be presented today during an oral presentation at the American Academy of Neurology (AAN) Annual Meeting in Chicago.

The updated data demonstrate deep and durable clinical responses across all key clinical outcome measures with sustained benefit observed out to one year following a single dose of miv-cel. Further, miv-cel was well-tolerated.

"We are pleased to share updated data for miv-cel that continue to demonstrate the depth and durability of response across key outcome measures in patients with generalized myasthenia gravis, setting a new clinical standard," said Warner Biddle, Chief Executive Officer of Kyverna Therapeutics. "Our data reinforces confidence in miv-cel's differentiated profile, strengthens our conviction in the ongoing Phase 3 trial, and more broadly solidifies our leadership in neuroimmunology CAR T."

KYSA-6 Phase 2 Clinical Trial Summary and Data Highlights

The Phase 2 portion of the KYSA-6 registrational trial is designed as a single-arm, open-label, multicenter study of miv-cel in patients with gMG. The primary endpoints are Myasthenia Gravis Activities of Daily Living (MG-ADL) score at 24 weeks and the incidence and severity of adverse events (AEs). Secondary endpoints include Quantitative Myasthenia Gravis (QMG) and Myasthenia Gravis Composite (MGC) scores.

As of the February 25, 2026 data cut-off, seven patients with moderate-to-severe gMG (mean MG-ADL 10.6, QMG 16.9, MGC 21.4) were treated with a single dose of 1×10^8 miv-cel CAR T- cells. All patients had failed prior immunosuppressant therapies, such as neonatal fragment crystallizable receptors (FcRns) and/or complement inhibitors and other biologics. At data cut-off, the median duration of follow-up after miv-cel infusion was 10.2 months (range, 3.3-16.0).

"Many patients with generalized myasthenia gravis require chronic treatment and face inadequate symptom control despite currently available therapies," said Professor Srikanth Muppidi, M.D., Clinical Professor, Adult Neurology, Stanford Medicine and investigator in the KYSA-6 clinical trial. "The ability of miv-cel to achieve minimal symptom expression while eliminating the need for chronic immunotherapies following a single dose represents a meaningful clinical advancement with the potential to significantly improve daily function and quality of life for patients. I'm encouraged by these findings and look forward to the results from the Company's Phase 3 trial."

Efficacy highlights from the updated Phase 2 trial following a single dose of miv-cel are as follows:

- 100% of patients achieved clinically meaningful[1], rapid, robust, and sustained reductions in MG-ADL and QMG scores from baseline (the co-primary endpoints of the Phase 3 portion of the trial), regardless of prior biologic exposure and at deeper levels observed compared to prior interim analysis.
  - Mean reductions of MG-ADL and QMG scores were -8.5 points and -11.3 points at Week 24, respectively, and deep responses were seen as early as two weeks.
  - Deep responses were sustained out to 52 weeks in the three patients with available follow-up.
  - 100% of patients responded, achieving a ≥3-point reduction in both MG-ADL and QMG.
  - 57% of patients achieved minimal symptom expression (MSE), defined as an MG-ADL score of 0 or 1, at last follow-up.
  - 100% of patients achieved clinically meaningful response by MGC[2] with a mean reduction of -16 points at 24 weeks.
- 100% of patients were free of nonsteroidal immunosuppressants, high-dose steroids (>10mg), and FcRn and complement inhibitors through Week 24.

Biomarker and mechanistic data further support miv-cel's differentiated clinical profile:

- Robust CAR T-cell expansion led to deep B-cell depletion for all patients, with evidence of immune reset.
- Reduced autoantibody levels with preservation of humoral immunity observed at week 12.

Miv-cel demonstrated a well-tolerated safety profile supporting the potential for outpatient administration:

- No high-grade cytokine release syndrome (CRS) and no immune effector cell-associated neurotoxicity syndrome (ICANS) events observed.
- Two patients experienced transient grade 3/4 treatment-related AEs of neutropenia, which were expected AEs consistent with lymphodepletion prior to CAR T-cell therapy, and fully resolved.

“Notably, today’s longer-term data demonstrate the continued deepening of response over time across multiple clinical outcome measures,” said Naji Gehchan, M.D., Chief Medical and Development Officer of Kyverna Therapeutics. “These profound and unprecedented results are driven by miv-cel’s unique ability to target the disease at the source, deeply depleting B-cells to drive an immune reset and achieve durable drug-free, disease-free remission for patients with generalized myasthenia gravis. The consistency of the results across all primary and secondary endpoints, further supported by biomarker data, is highly encouraging and underscores miv-cel’s potential to change the treatment paradigm with a single dose.”

KYSA-6 was amended into an FDA-aligned registrational Phase 2/3 trial in 2025. Kyverna is currently enrolling the Phase 3 portion of the trial, which has 14 active clinical sites across three geographies.

Investor Conference Call Details
Kyverna will host a conference call on Wednesday, April 22 at 7:00 am ET to review these results, as well as updated Phase 2 data from the KYSA-8 trial evaluating miv-cel in stiff person syndrome (SPS), which will also be presented at AAN. The conference call and live webcast details and presentation materials will be available on the "Events & Presentations" section of Kyverna's Investor Relations webpage at ir.kyvernatx.com. An archived replay will also be available.

Dial-In Registration Link:
Conference Call Registration

Webcast Link:
Kyverna AAN Conference Call

AAN Presentation Details
Oral Presentation: Update on the Phase Two Portion of KYSA-6, an Open-label, Single-arm, Multicenter Study of KYV-101, a Fully Human CD19 Chimeric Antigen Receptor (CAR) T-cell Therapy in Generalized Myasthenia Gravis (gMG)
Presenter: Srikanth Muppidi, M.D., Clinical Professor, Adult Neurology, Stanford Medicine
Date and Time: Monday, April 20, 2026, 1:48 PM CT

Poster Presentation: Design of Phase Three of KYSA-6, a Global Open-label, Randomized, Controlled Study of KYV-101, a Fully Human CD19 Chimeric Antigen Receptor (CAR) T-cell Therapy, Versus Ongoing Standard-of-Care (SOC) Immunosuppressive Therapy in Generalized Myasthenia Gravis (gMG)
Presenter: Srikanth Muppidi, M.D., Clinical Professor, Adult Neurology, Stanford Medicine
Date and Time: Tuesday, April 21, 2026, 5:00 PM CT

About Myasthenia Gravis (MG)
Myasthenia gravis is a B-cell and antibody-mediated autoimmune neuromuscular disease that causes muscle weakness and fatigue, and patients may experience difficulty speaking, chewing, swallowing, or breathing. MG is caused by autoantibodies produced by B-cells that lead to an immunological attack on critical signaling proteins at the junction between nerve and muscle cells, thereby inhibiting the ability of nerves to communicate properly with muscles. The disease includes gMG, which impacts muscles beyond the eyes and may involve bulbar, limb, and respiratory muscles. Most patients develop gMG within two years after MG diagnosis. Although symptoms may initially remit, most patients experience progressive disease requiring chronic immunosuppressive therapy. Up to 20% of MG patients experience respiratory crisis at least once in their lives[3]. An estimated 80,000 patients are diagnosed with gMG in the United States[4-5].

About miv-cel (mivocabtagene autoleucel, KYV-101)
Miv-cel is a fully human, autologous, CD19-targeting CAR T-cell therapy with CD28 co-stimulation, designed for potency and tolerability, which is under investigation for B-cell-driven autoimmune diseases. With a single administration, miv-cel has potential to achieve deep B-cell depletion and immune system reset to deliver durable drug-free, disease-free remission in autoimmune diseases.

About Kyverna Therapeutics
Kyverna Therapeutics, Inc. (Nasdaq: KYTX) is a late-stage clinical biopharmaceutical company focused on liberating autoimmune patients through the curative potential of cell therapy. The Company’s lead autologous CD19-targeting CAR T-cell therapy candidate, miv-cel (mivocabtagene autoleucel, KYV-101), has demonstrated the potential to fundamentally change the treatment paradigm across multiple B-cell-driven autoimmune diseases. Kyverna is advancing its potentially first-in-class neuroimmunology franchise with its initial indications in stiff person syndrome and generalized myasthenia gravis. The Company is also advancing additional clinical and investigator-sponsored studies, including in multiple sclerosis and rheumatoid arthritis, to inform future priority indications and develop next-generation CAR T platforms to improve access and patient experience. For more information, please visit https://kyvernatx.com.

Forward-Looking Statements
Statements in this press release about future expectations, plans and prospects, as well as any other statements regarding matters that are not historical facts, may constitute “forward-looking statements.” The words, without limitation, “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these or similar identifying words. Forward-looking statements in this press release include, without limitation, those related to: the potential for the longer-term data from the Phase 2 portion of Kyverna’s KYSA-6 Phase 2/3 registrational trial of miv-cel to increase confidence in the Phase 3 portion of the trial and to reinforce miv-cel’s potential best-in-class profile for

delivering durable, drug-free, disease-free remission with a single dose, and the ability of such data to demonstrate continued deepening of response over time across multiple clinical outcome measures; Kyverna's leadership in neuroimmunology CAR T; opportunities related to miv-cel, including its potential for outpatient administration and potential to set a new clinical standard, the ability of miv-cel to achieve MSE while eliminating the need for chronic immunotherapies following a single dose, and the potential for such achievement to represent a meaningful clinical advancement and to significantly improve daily function and quality of life for patients; the ability of miv-cel to target a disease at the source and to deeply deplete B-cells or drive an immune reset and achieve durable drug-free, disease-free remission for patients with gMG; the potential for miv-cel to fundamentally change the treatment paradigm across multiple B-cell-driven autoimmune diseases, including to change the treatment paradigm for gMG with a single dose; the ongoing Phase 3 portion of the trial, including enrollment therein; Kyverna's advancement of its potentially first-in-class neuroimmunology franchise with its initial indications in SPS and gMG and of additional clinical and investigator-sponsored studies, and the potential for such advancement to improve access and patient experience; and the anticipated timing for Kyverna's conference call and webcast and presentations at the AAN Annual Meeting and the topics expected to be discussed during such conference call and webcast and presentations. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: uncertainties related to market conditions, the possibility that results from prior clinical trials, named-patient access activities and preclinical studies may not necessarily be predictive of future results; the possibility that the FDA or other regulatory agencies may require additional trials or studies to support its intended BLA submission; intellectual property rights; and other factors discussed in the "Risk Factors" section of Kyverna's most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q that Kyverna has filed or may subsequently file with the U.S. Securities and Exchange Commission. Any forward-looking statements contained in this press release are based on the current expectations of Kyverna's management team and speak only as of the date hereof, and Kyverna specifically disclaims any obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise.

Contacts:

Investors: InvestorRelations@kyvernatx.com
Media: media@kyvernatx.com

[1] Clinically meaningful improvements in MG-ADL and QMG are defined as a ≥2-point reduction in MG- ADL from baseline and a ≥3-point reduction in QMG from baseline.

[2] A clinically meaningful improvement in MGC is defined as ≥3-point reduction from baseline.

[3] Claytor B, et al. Muscle Nerve. 2023;68(1):8-19.

[4] Rodriguez E, et al. Muscle. Nerve. 2024;69(2):166-171.

[5] Hendricks TM, et al. Am J Opthamol. 2019; 205:99-105. 3. Clarivate DRG Report (2024).