UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): November 16, 2026

Lexeo Therapeutics, Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware	**001-41855**	**85-4012572**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

345 Park Avenue South, Floor 6 **New York, New York** **(Address of Principal Executive Offices)**	**10010** **(Zip Code)**

Registrant's Telephone Number, Including Area Code: 212 547-9879

N/A
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 par value per share	LXEO	Nasdaq Global Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 2.02 Results of Operations and Financial Condition.

On November 16, 2026, Lexeo Therapeutics, Inc. (the "**Company**") issued a press release announcing business highlights and its financial results for the three and nine months ended September 30, 2026. A copy of this press release is furnished herewith as Exhibit 99.1 to this Current Report and is incorporated herein by reference.

The information in this Item 2.02 and Exhibit 99.1 hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any of the Company's filings under the Securities Act of 1933, as amended (the "**Securities Act**"), or the Exchange Act, whether made before or after the date hereof, except as expressly set forth by specific reference in such a filing.

Item 7.01 Regulation FD Disclosure.

The corporate presentation to be used in connection with the webcast described in Item 8.01 below is attached as Exhibit 99.2 to this Current Report on Form 8-K and incorporated into this Item 7.01 by reference.

The information in this Item 7.01, including Exhibit 99.2 attached hereto, shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section, nor shall they be deemed incorporated by reference in any filing under the Securities Act, except as expressly set forth by specific reference in such filing.

Item 8.01 Other Events.

In the press release described in Item 2.02 above, the Company announced positive interim Phase I/II clinical data and regulatory updates for LX2020 for the treatment of PKP2-associated arrhythmogenic cardiomyopathy ("**PKP2-ACM**"). As part of the press release, the Company announced that it would be hosting a conference call and webcast at 8:00 a.m. ET on November 16, 2026 to discuss the interim Phase I/II clinical data of LX2020 for the treatment of PKP2-ACM.

Also on November 16, 2026, the Company posted on its website an updated corporate presentation (the "**Corporate Presentation**"). The Corporate Presentation will be used from time to time in meetings with investors and analysts. A copy of the Corporate Presentation is attached hereto as Exhibit 99.3 and is incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit Number	Description
99.1	Press release issued by the Company on November 16, 2026, furnished herewith
99.2	Corporate Presentation (LX2020), dated November 16, 2026, furnished herewith
99.3	Corporate Presentation, dated November 16, 2026
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Lexeo Therapeutics, Inc.

Date: November 16, 2026

By: /s/ R. Nolan Townsend
R. Nolan Townsend, Chief Executive Officer

Exhibit 99.1

Lexeo Therapeutics Announces Positive Interim Phase I/II Data and Regulatory Update for LX2020 in PKP2 Arrhythmogenic Cardiomyopathy and Reports Third Quarter 2026 Financial Results

Participants in high-dose cohorts achieved 80% mean reduction in non-sustained ventricular tachycardia and 44% mean reduction in premature ventricular contractions at latest assessment

LX2020 generally well tolerated across 10 participants with no clinically significant complement activation

U.S. Food and Drug Administration open to guideline-defined non-sustained ventricular tachycardia as a primary surrogate endpoint to support potential accelerated approval of LX2020

Cash, cash equivalents and investments of $219.1 million expected to provide operational runway into 2028

Company to host webcast today at 8:00 AM ET

NEW YORK – November 16, 2026 (GLOBE NEWSWIRE) – Lexeo Therapeutics, Inc. (Nasdaq: LXEO), a clinical stage company focused on reshaping the path of genetic diseases with high unmet need, today announced positive interim data from the ongoing HEROIC-PKP2 Phase I/II clinical trial of LX2020 for the treatment of PKP2 arrhythmogenic cardiomyopathy (PKP2-ACM). Across ten participants, including nine with at least 12 months of follow-up, treatment with LX2020 was generally well tolerated and associated with clinically meaningful reductions in arrhythmia burden, including non-sustained ventricular tachycardia (NSVT) and premature ventricular contractions (PVC), as well as improvement in measures of right ventricular function and patient-reported symptoms. Lexeo is now designing a pivotal study with NSVT as a primary surrogate endpoint to support potential accelerated approval. The final study design including the statistical analysis plan and confirmatory strategy remains subject to future discussions with the FDA.

“These data further strengthen our confidence in LX2020 and its potential to address the underlying biology of PKP2-ACM,” said R. Nolan Townsend, Chief Executive Officer of Lexeo Therapeutics. “The magnitude and consistency of NSVT reduction far exceed what available therapies have historically achieved, underscoring how LX2020 could meaningfully improve outcomes for individuals with PKP2-ACM. Our regulatory discussions also provide important clarity on the path forward, including the FDA’s openness to the use of NSVT as a primary endpoint in a planned pivotal study given the well-established association between NSVT and sustained, life-threatening arrhythmic risk.”

“For families living with PKP2 arrhythmogenic cardiomyopathy, the risks and uncertainties reach far beyond the clinic and into every part of daily life,” said Walker Frahm, Chief Executive Officer of the Foundation for Inherited Arrhythmias (FIA). “Our community has waited a long time for treatments that might address the underlying cause of this disease. Early results like these give ACM families reason to hope for better, more targeted care. We look forward to larger studies that build on these findings.”

LX2020 Interim Update
Ten participants have been dosed in the HEROIC-PKP2 Phase I/II clinical trial, including three participants in Cohort 1 at the low dose (2×10^{13} vg/kg) and seven participants in Cohorts 2 and 3 at the high dose (6×10^{13}vg/kg). As of the October 15, 2026 data cutoff date, nine of ten participants reached at least 12 months of follow-up, with the remaining participant reaching nine months of follow-up. Safety and efficacy data are summarized for all ten participants at latest assessment.

Clinical Data

- 80% mean reduction in NSVT at latest assessment relative to baseline in high-dose cohorts (n=7), with deepening reduction in mean NSVT burden over time; six of seven participants demonstrated improvement at latest assessment
- 44% mean reduction in PVC burden at latest assessment relative to baseline in high-dose cohorts (n=7); five of seven participants demonstrated improvement at latest assessment
- Five of seven participants in high-dose cohorts reported symptom improvement at latest visit relative to baseline on the Patient Global Impression of Change (PGIC) scale, a patient-reported outcome measure
- Preliminary evidence of stabilization or improvement in cardiac function assessed by cardiac MRI in the majority of participants in high-dose cohorts
- Cardiac biopsy findings demonstrated dose-dependent increases in LX2020 transduction, mean exogenous PKP2 mRNA expression and mean PKP2 protein expression

Safety

- LX2020 generally well tolerated across ten participants dosed
- No clinically significant complement activation was observed and no participant discontinued the study
- Previously disclosed elevations in liver function tests (LFT) were observed in the high-dose cohorts and were treated successfully per the trial protocol with no complications or hospitalizations
- One previously disclosed Grade 3 serious adverse event of ventricular tachycardia (VT) was observed three months after dosing. This event is consistent with the natural course of PKP2-ACM and its known clinical manifestations. The participant was successfully treated with anti-arrhythmic medication and discharged with no additional intervention required

Regulatory Update and Next Steps

- The FDA is open to use of guideline-defined NSVT as a primary surrogate endpoint in an accelerated approval pivotal study
- Finalization of pivotal study design, statistical analysis plan and confirmatory evidence strategy expected in 1H 2027
- Lexeo expects to initiate a pivotal study supporting accelerated approval in 2H 2027

Q3 2026 Earnings Update

Today, Lexeo also reported financial results for the third quarter of 2026:

- **Cash Position:** As of **S**eptember 30, 2026, cash, cash equivalents, and investments in marketable securities were $219.1 million, which Lexeo believes will be sufficient to fund operations into 2028
- **Research & Development Expenses:** Research and Development expenses were $34.5 million for the three months ended September 30, 2026, compared to $15.7 million for the three months ended September 30, 2025. The majority of the increase was driven by one-time costs including the acquisition of Mantle Therapeutics, which closed in September 2026, as well as a development milestone that was achieved in the third quarter of 2026 related to LX2006 pivotal study initiation
- **General & Administrative Expenses:** General and Administrative expenses were $5.9 million for the three months ended September 30, 2026, compared to $6.0 million for the three months ended September 30, 2025
- **Net Loss:** Net loss was $38.3 million or $0.43 per share (basic and diluted) for the three months ended September 30, 2026, compared to $20.3 million or $0.33 per share (basic and diluted) for the three months ended September 30, 2025

Lexeo also announced the appointment of Toby Schilke as an independent director to the Board of Directors. Most recently, Mr. Schilke served as Chief Financial Officer of Crinetics Pharmaceuticals. He previously served as Chief Financial Officer at Revance Therapeutics and Achaogen. Earlier in his career, he held leadership roles across corporate development, commercial finance, marketing, and global operations at Roche and Genentech.

Corporate Webcast Details
Lexeo Therapeutics will host a webcast at 8:00 AM ET today, November 16, 2026. Analysts and investors can participate by accessing the webcast live on the News & Events page in the Investors section of Lexeo's website, www.lexeotx.com. The webcast will be archived on the company's website following the call.

About LX2020
LX2020 is an AAV-based gene therapy candidate for the treatment of plakophilin-2 arrhythmogenic cardiomyopathy (PKP2-ACM). Mutations in the *PKP2* gene are the most common genetic cause of ACM, responsible for approximately 50% of cases and estimated to affect approximately 60,000 people in the United States. PKP2 deficiency in ACM can lead to myocardial cell death, fibrosis, heart dysfunction, rhythm abnormalities, and sudden cardiac death. LX2020 is designed to systemically deliver a functional, full-length *PKP2* gene within an adeno-associated viral capsid, AAVrh10, to cardiomyocytes to restore the desmosomal complex and cell-to-cell adhesion. LX2020 is being evaluated in the single-arm, open-label, multi-center HEROIC-PKP2 Phase I/II clinical trial (NCT06109181). LX2020 has been granted Regenerative Medicine Advanced Therapy, Orphan Drug and Fast Track designations by the FDA.

About Lexeo Therapeutics
Lexeo Therapeutics is a New York City-based, clinical stage company dedicated to reshaping the path of genetic disease. By advancing pioneering science, Lexeo seeks to set a new standard in the treatment of cardiovascular and neurological genetic diseases, charting the path to patient outcomes once thought out of reach. The Company is advancing a portfolio of therapeutic candidates designed to address the underlying genetic causes of disease, including LX2006 for Friedreich ataxia (FA), LX2020 for PKP2-ACM, and others in devastating diseases with high unmet need.

Cautionary Note Regarding Forward-Looking Statements
Certain statements in this press release may constitute "forward-looking statements" within the meaning of the federal securities laws, including, but not limited to, Lexeo's expectations and plans regarding its current product candidates and programs and the anticipated benefits of its current product candidates, the timing and likelihood of potential regulatory developments, trial design changes and approval, and expectations regarding the time period over which Lexeo's capital resources will be sufficient to fund its anticipated operations and estimates regarding Lexeo's financial condition. Words such as "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "design," "estimate," "predict," "potential," "develop," "plan" or the negative of these terms, and similar expressions, or statements regarding intent, belief, or current expectations, are forward-looking statements. While Lexeo believes these forward-looking statements are reasonable, undue reliance should not be placed on any such forward-looking statements. These forward-looking statements are based upon current information available to the company as well as certain estimates and assumptions and are subject to various risks and uncertainties (including, without limitation, those set forth in Lexeo's filings with the U.S. Securities and Exchange Commission (SEC)), many of which are beyond the company's control and subject to change. Actual results could be materially different from those indicated by such forward-looking statements as a result of many factors, including but not limited to: expectations regarding the initiation, progress, and expected results of Lexeo's preclinical studies, clinical trials and research and development programs, including the outcome of ongoing discussions with the FDA regarding the design of the pivotal study to support an application for accelerated approval of LX2020, statistical analysis plan and confirmatory evidence strategy; the unpredictable relationship between preclinical study results and clinical study results; delays in submission of regulatory filings or failure to receive regulatory approval; liquidity and capital resources; and other risks and uncertainties identified in Lexeo's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2026, filed with the SEC on August 12, 2026, and subsequent future filings Lexeo may make with the SEC. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Lexeo claims the protection of the Safe Harbor contained in the Private Securities Litigation Reform Act of 1995 for forward-looking statements. Lexeo expressly disclaims any obligation to update or alter any statements whether as a result of new information, future events or otherwise, except as required by law.

Media Response:
Media@lexeotx.com

Investor Response:
Investors@lexeotx.com

Lexeo Therapeutics, Inc.
Selected Financial Information
(Unaudited, in thousands, except share and per share amounts)

Statements of Operations

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2026	2025	2026	2025
Operating expenses				
Research and development	$ 34,496	$ 15,695	$ 69,226	$ 47,587
General and administrative	5,903	5,953	21,526	38,554
Total operating expenses	40,399	21,648	90,752	86,141
Operating loss	(40,399)	(21,648)	(90,752)	(86,141)
Other income and expense				
Gain on long-term investment	-	-	-	3,390
Other expense, net	(9)	(9)	(16)	(27)
Interest expense	(12)	(22)	(43)	(75)
Interest income	2,160	1,456	6,467	3,917
Amortization of premium on investments in U.S. Treasury securities, net	(40)	(60)	(19)	(106)
Total other income and expense	2,099	1,365	6,389	7,099
Loss from operations before income taxes	(38,300)	(20,283)	(84,363)	(79,042)
Income taxes	-	-	-	-
Net loss	$ (38,300)	$ (20,283)	$ (84,363)	$ (79,042)
Net loss per common share, basic and diluted	$ (0.43)	$ (0.33)	$ (0.99)	$ (1.72)
Weighted average number of shares outstanding used in computation of net loss per common share, basic and diluted	88,681,360	60,980,867	85,191,438	45,991,572

Balance Sheet Data

	September 30, 2026	December 31, 2025
Cash, cash equivalents, and investments in U.S. Treasury securities	$ 219,134	$ 246,568
Total assets	243,916	268,688
Total liabilities	27,225	22,019
Total stockholders' equity	216,691	246,669

Exhibit 99.2

Interim Clinical Data from the Phase 1/2 HEROIC-PKP2 Trial of LX2020 in PKP2 Arrhythmogenic Cardiomyopathy

November 16, 2026



LEXEO therapeutics

Forward-looking statements

Certain statements in this presentation may constitute "forward-looking statements" within the meaning of the federal securities laws, including, but not limited to, Lexeo's expectations and plans regarding its current product candidates and programs, the anticipated benefits of its current product candidates, and the timing and likelihood of potential regulatory developments, trial design changes and approval. Words such as "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "design," "estimate," "predict," "potential," "develop," "plan" or the negative of these terms, and similar expressions, or statements regarding intent, belief, or current expectations, are forward-looking statements. While Lexeo believes these forward-looking statements are reasonable, undue reliance should not be placed on any such forward-looking statements. These forward-looking statements are based upon current information available to the company as well as certain estimates and assumptions and are subject to various risks and uncertainties (including, without limitation, those set forth in Lexeo's filings with the U.S. Securities and Exchange Commission (SEC)), many of which are beyond the company's control and subject to change. Actual results could be materially different from those indicated by such forward-looking statements as a result of many factors, including but not limited to: expectations regarding the initiation, progress, and expected results of Lexeo's preclinical studies, clinical trials and research and development programs, including the outcome of ongoing discussions with the FDA regarding the design of the pivotal study to support an application for accelerated approval of LX2020, statistical analysis plan and confirmatory evidence strategy; the unpredictable relationship between preclinical study results and clinical study results; delays in submission of regulatory filings or failure to receive regulatory approval; liquidity and capital resources; and other risks and uncertainties identified in Lexeo's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2026, filed with the SEC on August 12, 2026, and subsequent future filings Lexeo may make with the SEC. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Lexeo claims the protection of the Safe Harbor contained in the Private Securities Litigation Reform Act of 1995 for forward-looking statements. Lexeo expressly disclaims any obligation to update or alter any statements whether as a result of new information, future events or otherwise, except as required by law.

LEXEO therapeutics

Interim LX2020 data demonstrate clinically meaningful reductions in severe arrhythmia burden

1 CLINICAL EFFICACY	• ***80% mean reduction in NSVT*** *and* ***44% mean reduction in PVC burden*** *at latest assessment in participants in high-dose cohorts (n=7)* • ***Deepening reduction in mean NSVT burden over time*** *in high-dose cohorts* • *5 of 7 participants in high-dose cohorts reported symptom improvement on PGIC scale at latest visit* • *Preliminary evidence of* ***stabilization or improvement in cardiac function*** *on cardiac MRI in majority of participants in high-dose cohorts*
2 SAFETY	• *LX2020* ***generally well tolerated*** *across 10 participants dosed* • *No clinically significant complement activation and no study discontinuations*
3 REGULATORY PATH	• *FDA* ***open to guideline-defined NSVT[1,2] as a primary surrogate endpoint*** *to support potential accelerated approval of LX2020* • *Finalization of pivotal study design, statistical analysis plan and confirmatory evidence strategy expected in 1H 2027* • *Lexeo expects to initiate* ***pivotal study under accelerated approval pathway in 2H 2027***

NSVT, non-sustained ventricular tachycardia; PVC, premature ventricular contractions; PGIC, Patient Global Impression of Change.

Sources: (1) Al-Khatib SM, et al. Circulation. 2018;138:e272–e391. (2) Carrick RT, et al. Circ Arrhythm Electrophysiol. 2022;15:e011207. NSVT defined in guidelines as hemodynamically stable ventricular tachycardia at a rate of >100 beats per minute, lasting three or more beats and less than 30 seconds.

Significant commercial potential for LX2020 given unmet need and global patient population

60K

Patients in the U.S.

Larger-rare, diagnosed population

>$4-6B

Total addressable market opportunity

Significant commercial upside at peak



Global prevalence

Pivotal study feasible across US, EU, Asia and other geographies



Trial ready

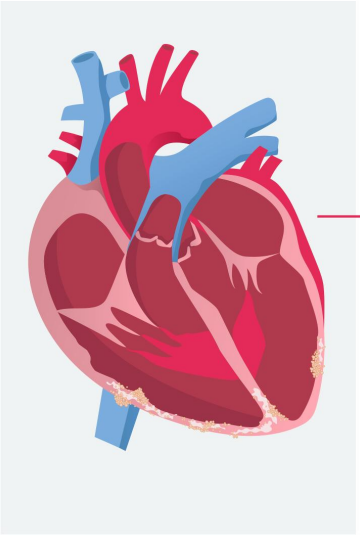
Broad patient pool expected to support rapid recruitment



Manufacturing scale

Differentiated Lexeo process will enable rapid and cost-efficient supply

Treatment response in PKP2-ACM may be reflected across complementary measures of disease activity



ACM / ARVC heart

Arrhythmic activity

- PVC burden
- NSVT burden
- Sustained VA / ICD shocks

Duration, frequency and proportion of patients experiencing events are evaluable parameters

Myocardial structure & function

- Right ventricular ejection fraction (RVEF)
- RV size and volumes
- Myocardial strain / contractility

Improvements in muscle strain may precede RV functional improvements due to existing scar tissue

Patient & clinical burden

- Patient-reported outcomes
- Treatment escalation (changes in AADs, ablation, transplant)

Despite currently available treatment options, patients continue to experience significant negative impact on quality of life

Measurements of arrhythmia and function have been assessed within individuals and across ACM populations

ACM, arrhythmogenic cardiomyopathy; PVC, premature ventricular contraction; NSVT, non-sustained ventricular tachycardia; VA, ventricular arrhythmia; ICD, implantable cardioverter defibrillator; RVEF, right ventricular ejection fraction; AAD, anti-arrhythmia drug.

Sources: (1) Cadrin-Tourigny J, et al. Eur Heart J. 2022;43(32):e1-e9. (2) Gasperetti A, et al. JAMA Cardiol. 2022;7(4):378-385; (3) Elias Neto J, et al. Arq Bras Cardiol. 2019;112(1):91-103;
(4) Wang W, et al. Europace. 2019;21(1):9-21.

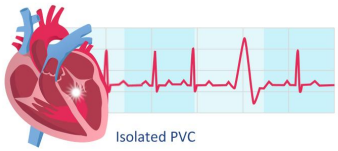
Ventricular arrhythmic activity exists along a spectrum of increasing complexity and clinical consequence

Increasing Arrhythmic Risk

Isolated PVC → NSVT → Sustained VT → ICD Firing / SCD

Premature Ventricular Contractions (PVCs)

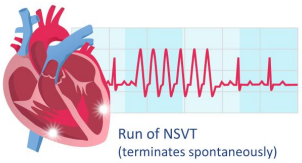
- Early ventricular beats that occur before the next expected heartbeat
- Common in the general population
- In structural heart disease (e.g., ACM), PVCs are more frequent



Isolated PVC

Non-sustained Ventricular Tachycardia (NSVT)

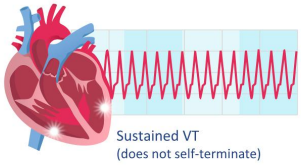
- Three or more consecutive ventricular beats lasting < 30 seconds at a ventricular rate of > 100 bpm[1]
- Indicates increased ventricular electrical instability and a higher risk of sustained arrhythmias, particularly in structural heart disease such as ACM



Run of NSVT
(terminates spontaneously)

Sustained Ventricular Tachycardia (VT)

- Continuous ventricular tachycardia either lasting ≥ 30 seconds or requiring intervention to terminate
- Associated with significantly greater risk of hemodynamic compromise, degeneration to ventricular fibrillation, and sudden death



Sustained VT
(does not self-terminate)

Serious Clinical Outcomes

ICD Firing

If sustained VT persists, an implantable cardioverter-defibrillator (ICD) can detect the arrhythmia and deliver a shock to restore a normal heart rhythm.

Sudden Cardiac Death (SCD)

If sustained VT degenerates into ventricular fibrillation (VF) or is not terminated, it can lead to sudden cardiac death.

Sources: (1) Al-Khatib SM, et al. Circulation. 2018;138(13):e272-e391. NSVT defined in guidelines as hemodynamically stable ventricular tachycardia at a rate of >100 beats per minute, lasting three or more beats and less than 30 seconds.

NSVT history and incidence is high among ACM patients with ICDs

NSVT is an established criteria for ICD intervention

~1.7x

higher rate of ICD implantation in patients with a history of NSVT[1]

- NSVT is a clinically relevant marker included in major ACM risk models[2], with ≥1 NSVT per day as an established threshold to predict future sustained and life-threatening VA[3]. NSVT history is a major risk factor supporting ICD implantation[4]

Most ACM patients have ICDs

~75%

of ACM patients have ICDs[5]

- ICDs remain standard of care for most ACM patients, for both primary and secondary prevention[4]

ICD eligibility criteria may select more patients with underlying NSVT

80-100%

of patients in SNAPSHOT (n=15) and HEROIC (n=10) studies respectively had NSVT burden at baseline Holter

- Inclusion criteria that specify ICD implantation and a minimum daily threshold of PVCs select for a trial population with clinically meaningful, measurable NSVT burden

NSVT, non-sustained ventricular tachycardia; ACM, arrhythmogenic cardiomyopathy; ICD, implantable cardioverter defibrillator; VA, ventricular arrhythmia; PVC, premature ventricular contraction.

Sources: (1) Carrick RT, et al. Euro Heart Journal. 2024;45:538-548. (2) Cadrin-Tourigny J, et al. Eur Heart J. 2022;43(32):e1-e9 . (3) Gasperetti A, et al. JAMA Cardiol. 2022;7(4):378-385. (4) Corrado D, et al. Circulation. 2015;132(5):441-453, (5) Bosman LP, et al. Europace. 2021;00:1-10.

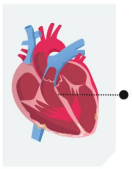
LEXEO therapeutics

Ejection fraction and RV free wall strain provide complementary views of systolic function in ACM

MEASUREMENT → PROGRESSION IN ACM → OUTCOMES

Ejection fraction (EF)

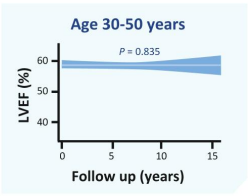
Pump output



Percentage of ventricular blood volume ejected with each contraction of the RV or LV

Global measure of systolic function

EF may remain stable in early ACM



- LVEF largely preserved in those with early-stage ACM[1]
- RV dysfunction often precedes overt LV dysfunction during ACM progression

Lower RVEF

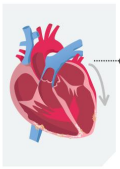
associated with increased severe ventricular arrhythmic risk in ACM[2]

Lower LVEF

represents more advanced stage of ACM, associated with increased risk of cardiac death and transplantation[3,4]

RV free wall strain

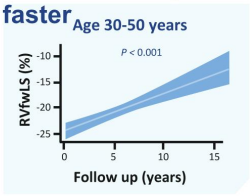
Muscle function



Percentage shortening of the RV free wall muscle during systolic contraction

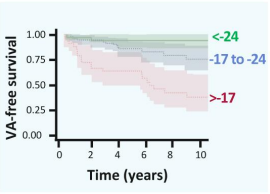
More sensitive marker of function

RV strain changes earlier and faster



- RV strain abnormalities emerge before RVEF shows any deterioration[1]
- In those with early-stage ACM, RV free wall strain **worsened by ~0.6% points per year** on average

Abnormal RV Free Wall Strain



Increased structural progression risk[5] with abnormal strain > -20%

Increased VA risk[6] with abnormal strain > −17%

RV, right ventricular; ACM, arrhythmogenic cardiomyopathy; LV, left ventricular; RVEF, right ventricular ejection fraction; LVEF, left ventricular ejection fraction; VA, ventricular arrhythmia.

Sources: (1) Kirkels FP, et al. J Am Coll Cardiol. 2023;82(9):785-797. (2) Cadrin-Tourigny J, et al. Eur Heart J. 2022;43(32):e1-e9. (3) Corrado D, et al. *Heart*. 2022;108(9):733-742. (4) Luo Y, et al. *ESC Heart Fail.* 2023;10(5):3028-3037. (5) Malik N, et al. J Am Heart Assoc. 2020;9(7):e015016. (6) Kirkels FP, et al. Eur Heart J Cardiovasc Imaging. 2023;24(12):1710-1718.

LEXEO therapeutics

LX2020 is being evaluated in an ongoing Phase 1/2 study: HEROIC-PKP2

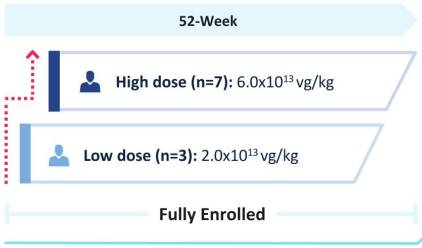
1 Study Design & Objective

Design:

52-week open-label study with a **4-year** long term follow up

Objective:

To assess the **safety** and **efficacy** of LX2020 in individuals with PKP2-ACM



2 Key Inclusion Criteria

- Adults (18-65 years)
- Diagnosis of ACM with documented *PKP2* mutation
- Existing ICD that is MRI compatible
  Minimum threshold of PVCs/24-hr
- Neutralizing anti-AAVrh.10 titer cutoff

3 Key Measurements

- Ventricular arrhythmias and associated measures (PVC, NSVT, VT, QRS)
- Cardiac structure & function (EF, EDV, ESV, RV strain)
- Change in symptoms (NYHA Class and PROs)
- Vector Transduction & Expression

ACM, arrhythmogenic cardiomyopathy; ICD, implantable cardioverter defibrillator; PVC, premature ventricular contraction; NSVT, non-sustained ventricular tachycardia; VT, ventricular tachycardia; EF, ejection fraction; EDV, end-diastolic volume; ESV, end-systolic volume; RV, right ventricular; NYHA, New York Heart Association; PROs, patient reported outcomes.

Note: LX2020 is administered systemically; participants receive immune suppression with prednisone and sirolimus on the day prior to treatment through ~14 weeks following LX2020 dosing.

Baseline characteristics consistent with PKP2-ACM, with more severe arrhythmia burden in high-dose cohorts

	Cohort 1 ($2.0x10^{13}$ vg/kg)			Cohorts 2 & 3 ($6.0x10^{13}$ vg/kg)						
Participant	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8[4]**	**9**	**10**
Age, years	34	22	29	44	43	30	41	41	28	39
Age at diagnosis	27	21	28	29	28	27	30	34	16	37
Gender	M	M	M	M	F	F	F	F	M	M
PVC per 24h[1]	1068	2849	2630	4780	3329	4826	4384	6308	773	5524
NSVT per 7 days[1]	1	3	2	31	8	13	24	1	5	8
T-wave inversion	5	0	2	3	3	3	3	3	4	0
QRS duration, ms	124	84	112	90	90	68	90	94	110	106
RVEF (%)[2]	43	52	42	31	34	33	42	52	43	47
NYHA class	I	I	II	I	I	I	I	I	I	I
Follow-up, months[2]	**24**	**18**	**12[3]**	**18**	**18**	**12**	**12**	**12**	**12**	**9**
Relevant medical history prior to study	Sustained VT, ICD shock, ablation	Sustained VT, syncope, ICD shock	Sustained VT, syncope	Sustained VT, VT storm, ICD shock, ablation	Sustained VT, ICD shock		Sustained VT, near syncope	Sustained VT, syncope, ablation, stable use of flecainide at study start	Sustained VT, VT storm, ICD shock, ablation	Sustained VT, syncope

ACM, arrhythmogenic cardiomyopathy; PVC, premature ventricular contraction; NSVT, non-sustained ventricular tachycardia; RVEF, right ventricular ejection fraction; NYHA, New York Heart Association; VT, ventricular tachycardia; ICD, implantable cardioverter defibrillator.

(1) NSVT and PVC baselines updated from January 2026 using guideline-defined NSVT criteria. NSVT runs <100bpm reclassified. Minor PVC count corrections also applied. See Oct. 21, 2026 event for details.

(2) Cardiac MRI conducted at 6-, 12- and 24-months of follow up but results lag Holter data. RVEF data were collected during 12-month visit, except for participant 1 at 24-months and participants 9 and 10 at 6-months.

(3) Participant 3 declined 18-month follow up visit but is expected for 24-month follow up.

(4) Participant 8 on flecainide at study start; no other participants taking background anti-arrhythmic drugs (AADs) at study start.

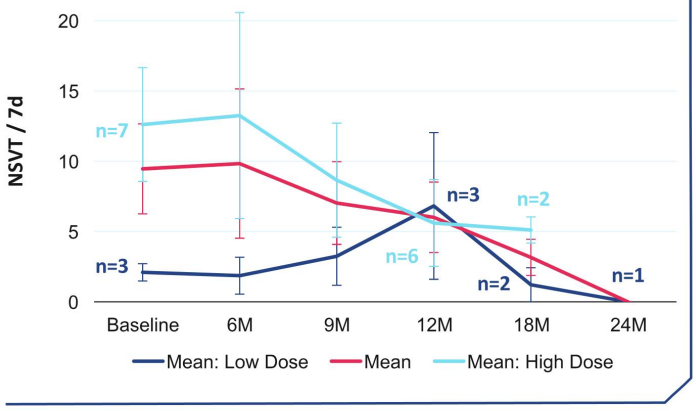
In high-dose cohorts, 80% mean improvement in NSVT and 44% mean improvement in PVCs at latest assessment

Cohort	Part. #	Latest Visit[1] (months)	Δ PVC / 24H Baseline → LV	Δ NSVT / 7d Baseline → LV	Δ RVEF %[1] Baseline → LV	Δ RV Strain %[1] Baseline → LV	Δ PGIC Scale Baseline → LV
Low Dose Cohort 1 (2E13 vg/kg)	#1 (M)	24	-57% 1068 → 460	-100% 1 → 0	43 → 40	-22 → -19	3 → 3
	#2 (M)	18	-1% 2849 → 2807	-23% 3 → 2	52 → 49	-20 → -20	3 → 1
	#3 (M)[2]	12	+82% 2630 → 4787	+717% 2 → 17	42 → 41	-20 → -22	3 → 4
	Mean		**+23%**	**+213%**	**Majority stable**		**1/3 improved**
High Dose Cohort 2 & Cohort 3 (6E13 vg/kg)	#4 (M)	18	-48% 4780 → 2472	-86% 31 → 4	31 → 40	-20 → -17	3 → 2
	#5 (F)	18	+74% 3329 → 5801	-25% 8 → 6	34 → 33	-12 → -16	3 → 3
	#6 (F)	12	-38% 4826 → 2998	-81% 13 → 2	33 → 36	-16 → -15	3 → 2
	#7 (F)[3]	12	-83% 4384 → 752	-96% 24 → 1	42 → 37	-13 → -19	3 → 3
	#8 (F)	12	-50% 6308 → 3171	+228% 1 → 3	52 → 48	-19 → -22	3 → 2
	#9 (M)	12	+47% 773 → 1138	-76% 5 → 1	43 → 39	-15 → -19	3 → 2
	#10 (M)	9	-94% 5524 → 341	-100% 8 → 0	47 → 43	-14 → -19	3 → 1
	Mean		**-44%**	**-80%**	**Majority stable or improved**		**5/7 improved**

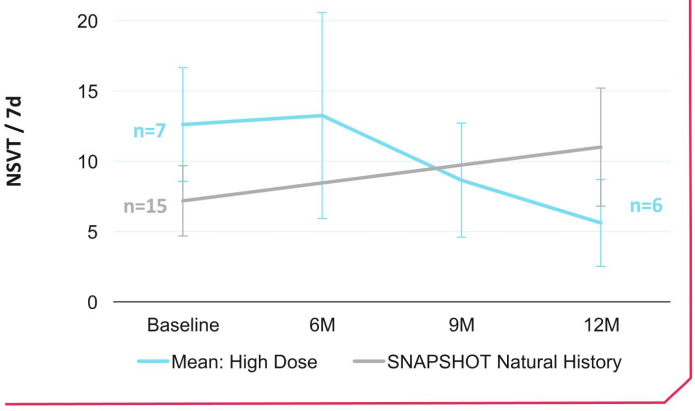
Data cutoff October 15, 2026. RVEF and RV strain values are percentages, changes reported are absolute change (percentage points). LV = latest visit.
(1) Cardiac MRI conducted at 6-, 12- and 24-months of follow up but results lag Holter data. RVEF data shown were collected during 12-month visit, except for participant 1 at 24-months and participants 9 and 10 at 6-months. RV strain data shown were collected during 12-month visit except for participants 6, 9, and 10 at 6-months.
(2) Participant 3 started background anti-arrhythmic therapy during the study period to manage a PVC spike. Participant declined 18-month follow up visit but is expected for 24-month follow up.
(3) Participant 7 started background anti-arrhythmic therapy during the study period to manage VT approximately three months after dosing.

Deepening reduction in NSVT observed, while natural history shows progressively increased arrhythmic burden

Mean NSVT Change:



Mean NSVT Change:



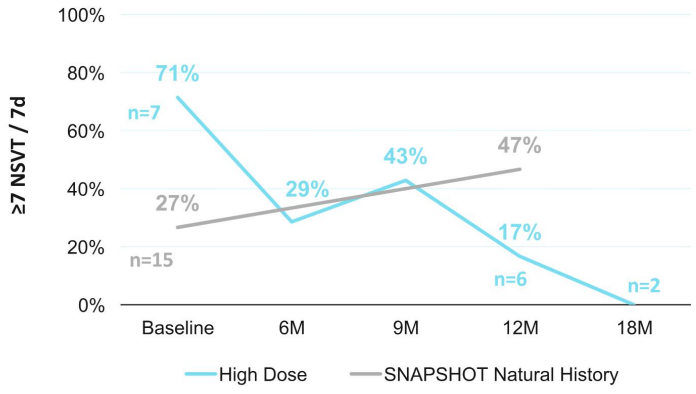
Deepening NSVT reduction over time with 80% mean reduction at latest visit in high-dose cohorts (n=7)

In contrast, participants in **SNAPSHOT natural history study demonstrated 53% increase in NSVT** at 12 months (n=15)

Participant 3 (low dose) declined 18-month follow up visit but is expected for 24-month follow up.

83% of high-dose cohort had less than 1 NSVT per day at 12 months, a clinically relevant threshold for ACM management

% Participants with Significant NSVT Burden
(at least 7 NSVT / 7d; High-dose Cohort)

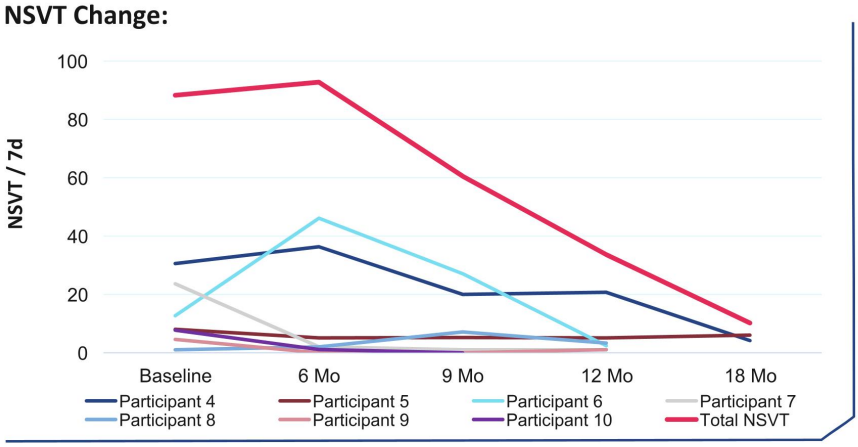


- The **presence of NSVT is a clinically relevant marker** for risk stratification, monitoring, and management, included in major ACM risk models[1]
- **≥1 NSVT per day is a strong predictor of future sustained and life-threatening ventricular arrhythmias**[2]
- While the majority of participants in high-dose cohorts exceeded this threshold at baseline, increasing future arrhythmic risk, **5 of 6 participants had fewer than 1 NSVT per day at 12 months**
- In contrast, **natural history demonstrated an increase in NSVT burden** over one year, despite existing standard of care

Sources: (1) Cadrin-Tourigny J, et al. Eur Heart J. 2022;43(32):e1-e9. (2) Gasperetti A, et al. JAMA Cardiol. 2022;7(4):378-385.

100% of high-dose participants were below the clinically relevant threshold for NSVT (<1/day) at latest Holter

NSVT Change:



- ≥1 NSVT per day is a strong predictor of future sustained VT risk[1]
- **All high-dose participants below the clinically relevant threshold for NSVT management at latest visit;** 83% responder rate at 12 months
- **NSVT improved in 6/7 participants** at latest visit relative to baseline
- **In most participants, NSVT reductions were substantial**, greater than the relative risk reduction expected from standard of care

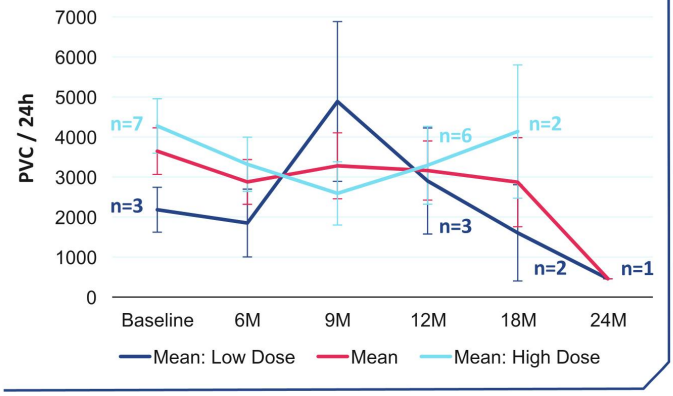
		Baseline	6 Mo (n=7)	9 Mo (n=7)	12 Mo (n=6)	18 Mo (n=2)
HEROIC	Mean change from baseline	-	+5%	-31%	-56%	-59%
	Participants below 1 NSVT/day (<7/7d)	2/7 29%	5/7 71%	4/7 57%	5/6 83%	2/2 100%
SNAPSHOT	Mean change from baseline	-	-	-	+53%	

NSVT, non-sustained ventricular tachycardia; VT, ventricular tachycardia.

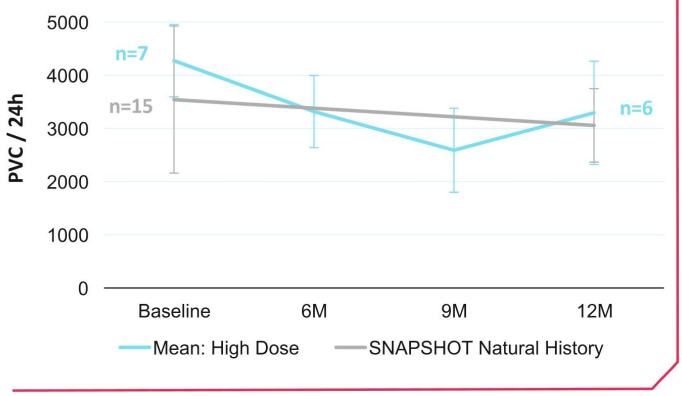
Sources: (1) Cadrin-Tourigny J, et al. Eur Heart J. 2022;43(32):e1-e9.

LX2020 reduced mean PVC burden by 44% in high-dose cohorts at latest assessment

Mean PVC Change:



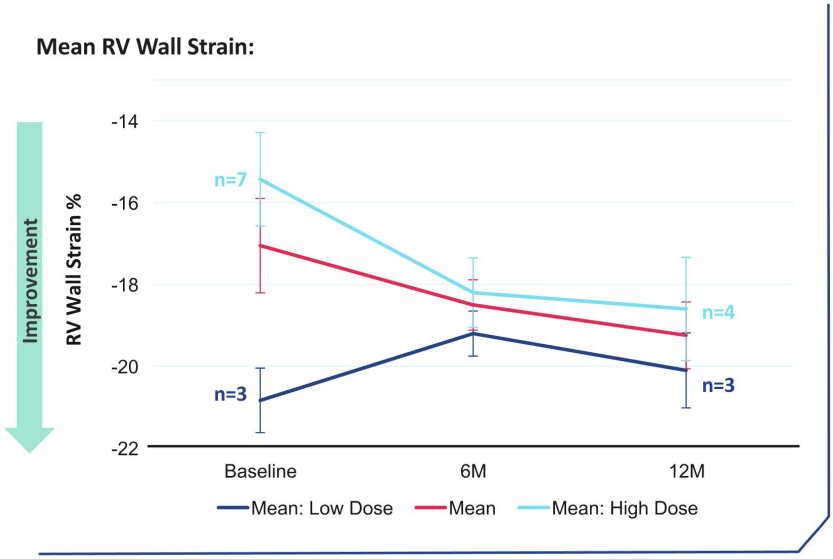
Mean PVC Change:



- **Mean PVC count decreased 44%** at latest assessment across participants in high-dose cohorts (n=7)
- In contrast, participants in **SNAPSHOT natural history study demonstrated a 14% decrease** in PVCs at 12 months (n=15)
- PVC reductions were observed alongside **substantial and deepening reductions in NSVT**
- **PVC burden and NSVT provide complementary measures of arrhythmic disease activity**; greater variability in PVC measurements is well recognized and may reflect the influence of physical activity and other external factors[1,2,3]

Sources: (1) Cadrin-Tourigny J, et al. Eur Heart J. 2022;43(32):e1-e9; (2) Towbin JA, et al. Heart Rhythm. 2019;16(11):e301-e372. (3) 1) Gasperetti A, et al. JAMA Cardiol. 2022;7(4):378-385.
Participant 3 (low dose) declined 18-month follow up visit but is expected for 24-month follow up.

Evidence of improved systolic function with RV free wall strain improvements and EF stabilization



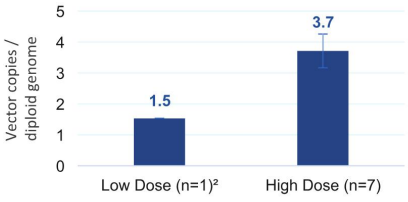
- RV free wall longitudinal strain, assessed via cardiac MRI, measures the percentage shortening of the RV free wall during systole
- RV wall strain reflects systolic performance and regional RV muscle function; **abnormal or reduced shortening reflects early RV dysfunction**[1]
- **Mean RV free wall strain improved** following gene therapy treatment in high-dose cohorts
- **RVEF and LVEF preserved or improved in the majority of participants at latest visit**, potentially indicative of slowed disease progression and improved function

Sources: (1) Kirkels FP, et al. J Am Coll Cardiol. 2023;82(9):785-797.
Cardiac MRI conducted at 6-, 12- and 24-months of follow up but results lag Holter data. RV strain data shown were collected during 12-month visit except for participants 6, 9, and 10 at 6-months.

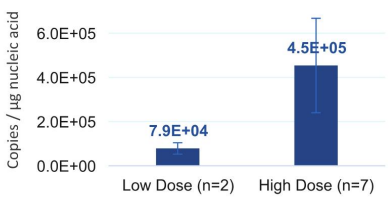
Supportive findings from cardiac biopsy and ECG

Cardiac Biopsy: Dose-dependent increases in mean VCN, mRNA and western blot

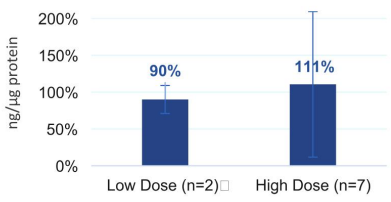
Post-Dose Vector Copy Number (VCN)[1]



Post-Dose Exogenous PKP2 (mRNA)[1]

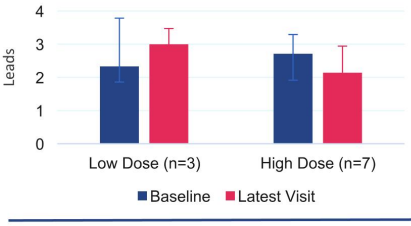


PKP2 Change from Baseline (Western Blot)[3]

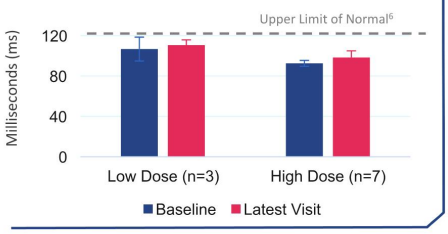


ECG: T-wave inversion and QRS duration stable across participants

T-Wave Inversion[5]



QRS Duration[5]



1. LX2020 not detected in pre-dose VCN or mRNA samples as expected. Participant 3 elected not to undergo a post-treatment biopsy.
2. Participant 1 VCN not performed due to insufficient remaining cardiac biopsy tissue following other analyses.
3. GAPDH normalized. Fibrofatty tissue (characteristic of ACM) may impact biopsy samples. Cardiac biopsy not expected in planned pivotal study.
4. Lab vendor identified an error with respect to Patient 2 in PKP2 expression data, impacting the low dose mean. Previously reported data for Patient 2 was 115% and corrected value is 109%.
5. ECG data shown were collected during latest visit except for participant 5 at 12-months, due to a site submission delay.
6. Wagner GS, et al. J Am Coll Cardiol. 2009.

Safety update: Treatment with LX2020 generally well tolerated to date

- LX2020 generally well tolerated across 10 participants dosed
- No clinically significant complement activation
- No study discontinuations
- Previously disclosed LFT elevations observed in high-dose cohorts were successfully managed per protocol with no hospitalizations or complications
- One previously disclosed Grade 3 SAE of sustained ventricular tachycardia (VT) was observed three months after dosing. This event is consistent with the natural course of PKP2-ACM and its known clinical manifestations. The participant was successfully treated with anti-arrhythmic medication and discharged with no additional intervention required

Summary of results and next steps for LX2020

1

Meaningful Clinical Activity

LX2020 continues to demonstrate improvements across multiple measures of disease burden and patient experience

2

Increasing Confidence in Dataset

Additional follow-up strengthens the durability, consistency, and overall benefit-risk profile of LX2020

3

Clear Path Forward

Regulatory feedback supports continued advancement of LX2020 toward a potential pivotal study

Interim HEROIC-PKP2 data continue to support LX2020's potential as the first disease-modifying therapy for PKP2-ACM

Thank you to the ACM community

Individuals and families impacted by genetically mediated cardiovascular diseases are at the center of our mission

We are grateful to the participants, caregivers, investigators, advocacy organizations and broader ACM community who contributed to HEROIC-PKP2

We remain committed to advancing research, awareness, diagnosis and treatment for individuals living with PKP2-ACM

Global Heart Hub

DCM Foundation
Hope for People with Dilated Cardiomyopathy

FIA
FOUNDATION FOR
Inherited Arrhythmias

everygene

Genetic Cardiomyopathy
Awareness Consortium
Brought to you by DCM Foundation

LEXEO therapeutics

THANK YOU

Exhibit 99.3

Lexeo Therapeutics

Corporate Overview

November 2026



Forward-looking statements

Certain statements in this presentation may constitute "forward-looking statements" within the meaning of the federal securities laws, including, but not limited to, Lexeo's expectations and plans regarding its current product candidates and programs, the anticipated benefits of its current product candidates, the timing for receipt and announcement of data from its clinical trials, the timing and likelihood of potential regulatory developments, trial design changes and approval, and expectations regarding the time period over which Lexeo's capital resources will be sufficient to fund its anticipated operations and estimates regarding Lexeo's financial condition. Words such as "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "design," "estimate," "predict," "potential," "develop," "plan" or the negative of these terms, and similar expressions, or statements regarding intent, belief, or current expectations, are forward-looking statements. While Lexeo believes these forward-looking statements are reasonable, undue reliance should not be placed on any such forward-looking statements. These forward-looking statements are based upon current information available to the company as well as certain estimates and assumptions and are subject to various risks and uncertainties (including, without limitation, those set forth in Lexeo's filings with the U.S. Securities and Exchange Commission (SEC)), many of which are beyond the company's control and subject to change. Actual results could be materially different from those indicated by such forward-looking statements as a result of many factors, including but not limited to: expectations regarding the initiation, progress, and expected results of Lexeo's preclinical studies, clinical trials and research and development programs, including the outcome of ongoing discussions with the U.S. Food and Drug Administration (FDA) regarding the design of our pivotal trials for accelerated approval pathway and the confirmatory strategy; the unpredictable relationship between preclinical study results and clinical study results; delays in submission of regulatory filings or failure to receive regulatory approval; liquidity and capital resources; and other risks and uncertainties identified in Lexeo's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2026, filed with the SEC on August 12, 2026, and subsequent future filings Lexeo may make with the SEC. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Lexeo claims the protection of the Safe Harbor contained in the Private Securities Litigation Reform Act of 1995 for forward-looking statements. Lexeo expressly disclaims any obligation to update or alter any statements whether as a result of new information, future events or otherwise, except as required by law.

LEXEO therapeutics

Reshaping the path of genetic disease

Our vision: To set a new standard in the treatment of genetic diseases with high unmet need, charting the path to patient outcomes once thought out of reach

- Genetic disease expertise with cardiovascular and neurological focus
- Proven experience in the clinic
- Platform designed for safety and scalability



Pioneering science that fundamentally changes how genetic diseases are treated

Genetic disease expertise

Leader in developing disease-modifying therapies for inherited diseases with high morbidity and mortality

Innovative AAV manufacturing

Optimized Sf9 baculovirus manufacturing platform designed to support future commercial scale-up for lead gene therapy assets

Multimodal therapeutic portfolio

Robust pipeline of complementary approaches to address the full complexity of genetic disease

Strong cardiac foundation

Genetic medicine know-how rooted in cardiac science, with proven clinical experience and preclinical disease model expertise

Strong financial position

Cash runway into 2028, supporting multiple value creating milestones

Advancing cardiac and neurological therapies in diseases with high unmet need

Programs	Indication	Target Gene	Modality	PRE-CLINICAL: Discovery	PRE-CLINICAL: Preclinical	CLINICAL: Phase I/II	CLINICAL: Phase II/III
FRIEDREICH ATAXIA PROGRAMS							
LX2006	Friedreich ataxia cardiomyopathy	*FXN*	Gene therapy	■	■	■	■
LX3010	Friedreich ataxia	*FXN*	Small molecule	■	■	■	
PRECLINICAL CANDIDATES	Friedreich ataxia	*FXN*	Multiple modalities	■	■		
DISCOVERY CANDIDATES	Friedreich ataxia	*FXN*	Multiple modalities	■			
CARDIAC PROGRAMS							
LX2020	Arrhythmogenic cardiomyopathy	*PKP2*	Gene therapy	■	■	■	
LX2021	DSP (Desmoplakin) cardiomyopathy	*GJA1* (encoding for CX43 protein)	Gene therapy	■	■		
LX2022	Hypertrophic cardiomyopathy	*TNN13*	Gene therapy	■	■		
DISCOVERY CANDIDATES	Undisclosed		Antisense oligonucleotide	■			
ALZHEIMER'S PROGRAMS							
LX1001	Alzheimer's APOE2+	APOE2+	Gene therapy	■	■	■	
LX1021	Alzheimer's Christchurch	Christchurch APOE2+	Gene therapy	■	■		
LX1020	Alzheimer's APOE2+ /E4-	APOE2+ APOE4-	Gene therapy	■			

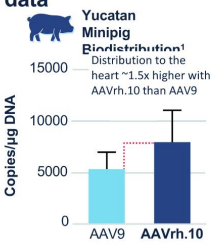
Lexeo retains global rights across all programs

Gene therapy backbone: Highly differentiated capsid supports Lexeo's lead cardiac programs

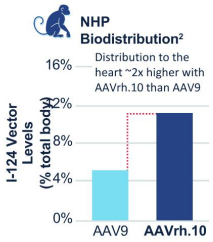
Cardiac tropism of AAVrh.10 may allow lower doses for cardiac gene therapy

Compelling cardiac tropism in preclinical data

Yucatan Minipig Biodistribution[1]



NHP Biodistribution[2]

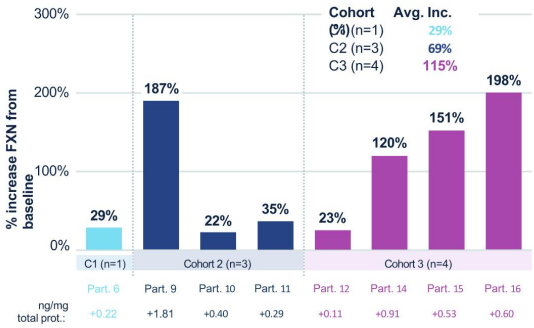


Observed ~1.5x to 2.0x greater biodistribution in the heart compared to AAV9 in multiple large animal models

Observed greater trends of functional improvements in PKP2-murine model compared to AAV9

Significant evidence of protein expression in clinical data with AAVrh.10 capsid

Increased Frataxin Expression Across All Participants Evaluated at 3-Months Post Treatment – Measured by LCMS (Previously Reported)



In LX2006 clinical data, an increase in FXN protein was observed in human cardiac biopsies at the high dose of 1.2 × 10^{12} vg/kg.

This remains a relatively low dose in cardiac gene therapy and showed an important increase from baseline.

AAVrh.10 has been utilized systemically across LX2006 and LX2020 with no clinically significant complement activation. Both LX2006 and LX2020 have been generally well-tolerated to date.

1 - Selvan, N. et al. Poster presented at: ASGCT Annual Meeting; May 16-20, 2023; Los Angeles, CA. 2 - Ballon DJ et al, Human Gene Therapy, 2020.
Note: FXN, Frataxin; LCMS, Liquid chromatography mass spectrometry. FXN expression assessed with academic LCMS assay, assay validation in progress for pivotal study. LX2006 FXN data previously reported in April 2025.

Gene therapy backbone: Lexeo's optimized Sf9 baculovirus platform combines differentiated manufacturing, attractive economics and demonstrated commercial readiness

Differentiated Manufacturing

Fewer empty AAV capsids	Higher yields	Greater downstream recovery
<25%	1.0E15 vg/L	>55%

- Optimized Sf9 baculovirus platform
- Improved genomic purity
- High-quality vector production
- Higher yield and quality compared to HEK model

Potentially Transformational COGS Profile

- Higher Yield + Well Defined Starting Materials
- Higher Recovery
- Fewer Empty Capsids
- Fewer Production Runs
- **Lower Cost Per Dose**

Launch Readiness

- LX2006 selected for FDA CDRP program



- FDA confirmed no additional nonclinical bridging studies required
- Final commercial manufacturing process cleared for SUNRISE-FA 2
- Commercial-scale drug product available immediately for patient dosing

High yield, strong product quality, and an FDA-endorsed commercial manufacturing process position Lexeo for attractive economics and execution readiness across our pipeline

Lexeo's two clinical stage gene therapy programs address devastating cardiac diseases

Goal:

Leveraging gene therapy to address devastating cardiac diseases with no existing disease-modifying treatments

LX2006

Friedreich Ataxia Cardiomyopathy

- Potential first disease-modifying gene therapy for FA cardiomyopathy (FA-CM)
- Only program with clinical trial data in FA-CM, which accounts for death in up to 80% of people with FA
- Clinical data to date demonstrate an encouraging safety profile and sustained and deepening improvements across both cardiac and neurologic measures of FA
- Finalized SUNRISE-FA 2 pivotal protocol and SAP for accelerated approval; Study initiated in June 2026

Milestones:

- Topline data readout expected in 2H 2027
- Potential BLA submission under accelerated approval pathway in 1H 2028

LX2020

PKP2 Arrhythmogenic Cardiomyopathy

- Potential best-in-class treatment for PKP2-ACM; ~60K people in US with no disease-modifying treatment available
- Clinical data to date demonstrate a well tolerated safety profile and clinically meaningful reductions in severe arrhythmia burden
- FDA open to guideline-defined NSVT as a primary surrogate endpoint to support potential accelerated approval of LX2020

Milestones:

- Finalization of pivotal protocol, SAP and confirmatory evidence strategy expected in 1H 2027
- Initiation of pivotal study anticipated in 2H 2027

FA - Friedreich ataxia; FA-CM - Friedreich ataxia cardiomyopathy; FXN - Frataxin; LVMi - Left ventricular mass index; ACM - arrhythmogenic cardiomyopathy; NSVT - non-sustained ventricular tachycardia; SAP – statistical analysis plan.

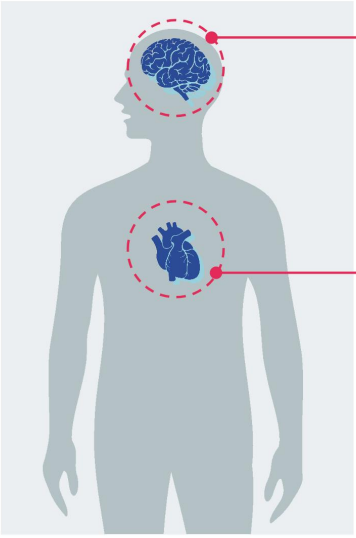
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FRIEDREICH ATAXIA PLATFORM

Lead Asset:
Gene Therapy LX2006

Friedreich ataxia is a rare, progressive multisystem disease with significant unmet need

FA is caused by a loss of function mutation in the *FXN* gene



Neurological Burden

Progressive ataxia, impaired coordination and peripheral nervous system involvement can materially reduce independence and quality of life

Cardiac Burden

Cardiac dysfunction in FA associated with a multitude of symptoms but ultimately presents as cardiac hypertrophy and subsequent heart failure[1]

Cardiac complications account for up to 80% of deaths in those with FA, with an average life expectancy of 35–40 years[1,2]

There is no approved treatment specifically for FA cardiomyopathy

~5,000
individuals affected by FA in the U.S.[2]

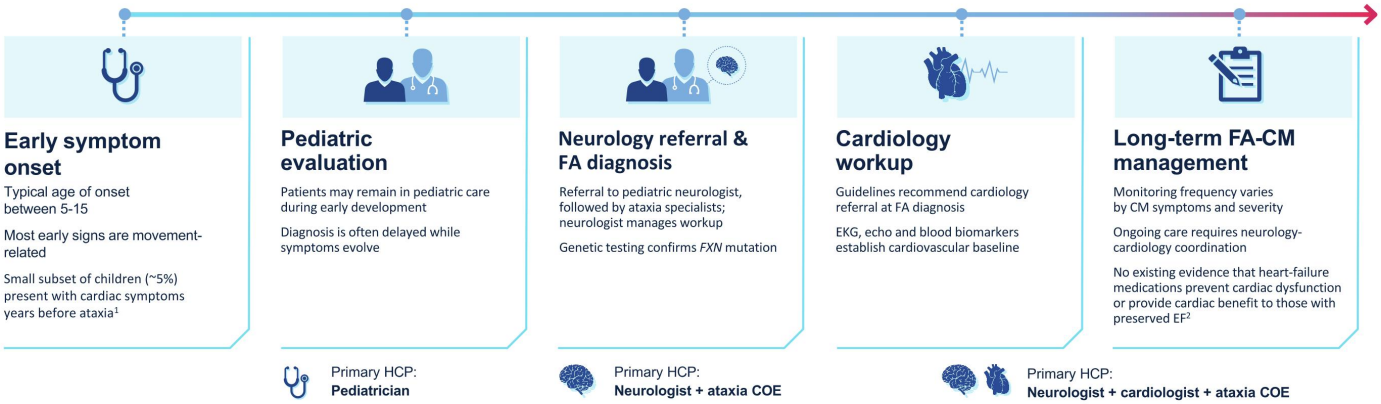
~15,000
individuals affected by FA worldwide[2]

Cardiac complications are the leading driver of mortality, while neurological decline drives substantial lifelong disability; a leading FA platform must address both.

1 - Payne R.M. JACC Basic Transl Sci, 2022;13;7(12):1267-1283.
2 - Indelicato, E., et al. Mov Disord, 2024;39(3), 510–518.

Timely, multidisciplinary care is critical to identifying and managing Friedreich ataxia cardiomyopathy (FA-CM)

Cardiac symptoms may be absent or under-recognized even as cardiomyopathy evolves, supporting the need for earlier evaluation and coordinated neurology-cardiology care



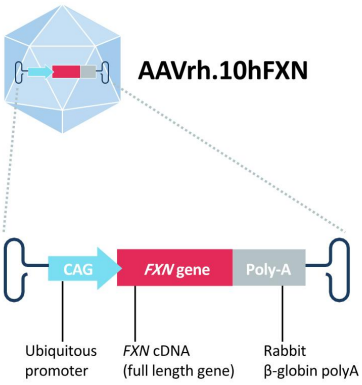
Cardiac complications drive up to 80% of FA deaths, often by the mid-30s, reinforcing the need for early cardiac evaluation, coordinated follow-up and disease-modifying treatments[3,4]

Source: HCP and patient market research. COE, center of excellence.

1 - Norrish G., et al. Friedreich's ataxia-associated childhood hypertrophic cardiomyopathy: a national cohort study. 2 - Clinical Management Guidelines for Friedreich Ataxia. Chapter 4. The heart and cardiovascular system in Friedreich ataxia. 2022. 3 - Tsou AY, Paulsen EK, Lagedrost SJ, et al. Mortality in Friedreich ataxia. J Neurol Sci. 2011;307(1-2):46-49. doi:10.1016/j.jns.2011.05.023. PMID:21652007. 4 - Pousset F, Legrand L, Monin ML, et al. A 22-Year Follow-up Study of Long-term Cardiac Outcome and Predictors of Survival in Friedreich Ataxia. JAMA Neurol. 2015;72(11):1334-1341. doi:10.1001/jamaneurol.2015.1855. PMID:26414159.

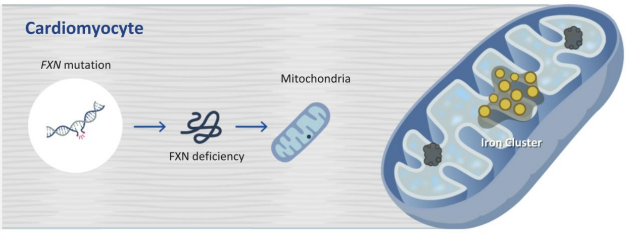
Gene therapy LX2006 has the potential to treat the root cause of FA-CM: significant decrease in frataxin in the heart

LX2006 construct:



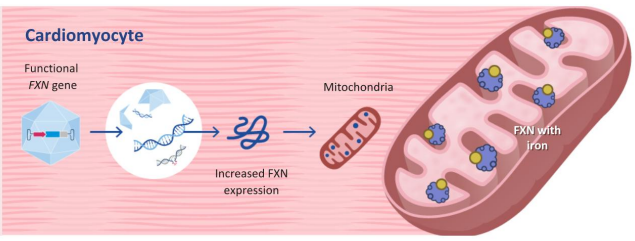
FA Cardiomyopathy

FXN deficiency results in **mitochondrial dysfunction** and leads to **deficient energy production** in thickened cardiomyocytes



LX2006 Mechanism

Delivery of *FXN* gene in cardiomyocytes by LX2006 is intended to **increase frataxin protein levels** in the mitochondria and **improve heart muscle function**

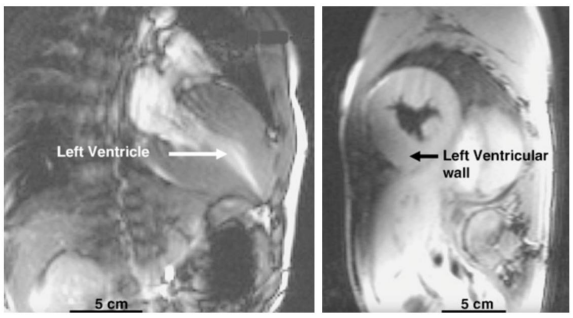


AAV, Adeno-Associated Virus; CAG, Chicken Beta-Actin; cDNA, Copy DNA; FA, Friedreich Ataxia; FXN, Frataxin; Poly-A, Poly Adenosine.

Elevated LVMi predicts mortality in FA and is not expected to decrease significantly without intervention

Increases in LVMi independently predict mortality in Friedreich Ataxia (FA)

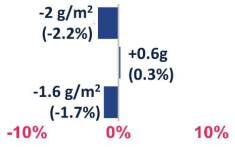
Natural history study showed a **19%** higher risk of death per 10g/m^2 (HR 1.19; 95% CI)[1]



MRI of individual with FA cardiomyopathy demonstrating significant hypertrophy.

No Significant Change in LVMi or LV Mass (LVM) Control Across Multiple Randomized Controlled Trials

Disease	Measure[3]	LVMi or LVM Percent Change from Baseline in Placebo or Control Arm
Fabry Disease	LVMi at 18 months on ERT	-2 g/m^2 (-2.2%)
Amyloidosis (ATTR)	LVM at 18 Months	+0.6g (0.3%)
HCM	LVMi at 30 Weeks	-1.6 g/m^2 (-1.7%)



Note: Percent change in LVM / LVMi calculated based on change applied to baseline levels.

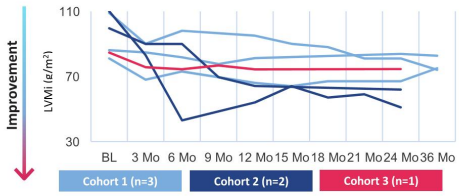
- Concentric hypertrophy, with increased left ventricular mass and wall thickness, is a hallmark of FA cardiomyopathy[1]
- In FA and many other cardiac diseases, elevated LVMi is not expected to significantly decrease without intervention,[1,3] and abnormal LVMi is closely correlated with poor outcomes[2]
- Reduction in LVMi may improve cardiac outcomes; key primary endpoint for pivotal trial in FA cardiomyopathy

HR, Hazard Ratio; CI, Confidence Internal; LVMi, Left Ventricular Mass Index.
Note: 10g/m2 represents approximately 10% change in LVMi based on echocardiography measurements of upper bound of normal (105 g/m2).

1 - Pousset, F. et al. JAMA Neurol, 2015;72(11):1334-1341.
2 - Includes heart failure with preserved ejection fraction, Shah et al, Journal of American College of Cardiology, 2019; hypertensive cardiomyopathy, Muiesan et al, Hypertension, 2004; Fabry disease, Orsborne et al, Journal of American College of Cardiology, 2022; and obstructive hypertrophic cardiomyopathy, Hegde et al, Journal of American College of Cardiology, 2021.
3 - Hughes DA, et al. J Med Genet, 2017;54:288–296; Migalastat; Solomon S, et al. Circulation, 2018. Patisiran; Saberi S, et al. Circulation, 2021;143:606–608. Mavacamten; Data on file.

LX2006 clinical data show sustained or deepening improvements across cardiac measures of FA; LX2006 generally well tolerated

Cardiac MRI: LVMi (n=6; abnormal at baseline)



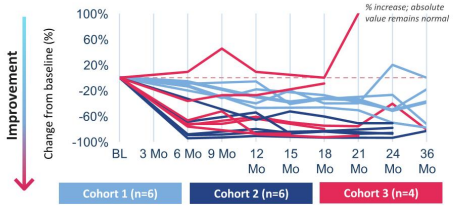
- Majority of participants reach or remain in normal LVMi range at latest visit
- **Durable LVMi improvement maintained out to three years following treatment**

Mean LVMi Change

Participants at 24-mo visit *(n=6)*	-25%
Participants at 12-mo visit *(n=6)*	-23%
Participants at 6-mo visit[1] *(n=6)*	-18%
Cohorts 2 and 3 at 24-mo visit *(n=3)*	-35%
Cohorts 2 and 3 at 12-mo visit *(n=3)*	-33%
Cohorts 2 and 3 at 6-mo visit[1] *(n=3)*	-28%

Among participants with abnormal baseline LVMi (key inclusion criteria for pivotal study; n=6):

Biomarkers: High-Sensitivity Troponin I (n=17)



- **16 of 17 participants have significantly reduced or stable troponin I,** excluding participant with myocarditis[2]
- Highly specific, blood-based marker of myocardial injury

LX2006 generally well tolerated

- LX2006 generally well tolerated across 17 participants dosed with no Grade 3 treatment-related SAEs to date
- No clinically significant complement activation
- Minimal, transient LFT elevations
- No signs of frataxin over-expression observed in cardiac tissue
- One previously disclosed, possibly treatment-related Grade 2 event of asymptomatic myocarditis observed one year after dosing

1- Participant 11 6-month visit not conducted due to hurricane; 3-month visit used for mean calculations. (2) Participant 10 not included in Hs-TNI chart due to scale. Values are +29% at 6M, +45% at 9M, +2,702% at 12M, +1,857% at 18M, +1,620% at 21M, and +1,458% at 24M as of most recent safety monitoring.
Note: Data as of September 2026.

Cardiac function improvement observed in individual with later stage cardiomyopathy

Effect of LX2006 on Cardiac Function

Majority of Participants (16/17)

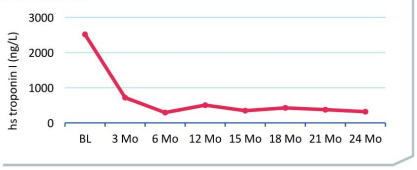
- **Baseline LVEF:** Normal
- **Post therapy:** No change

One Participant (#13) with later stage cardiomyopathy

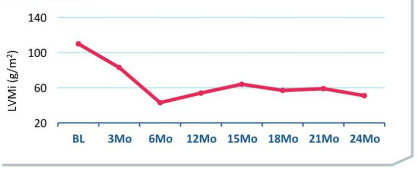
- **Baseline LVEF:** Low (35%)
- **Post Therapy:** Significant improvements across all cardiac biomarkers

Cardiac Improvements 24 months Post LX2006 Treatment in Participant with Low Baseline LVEF

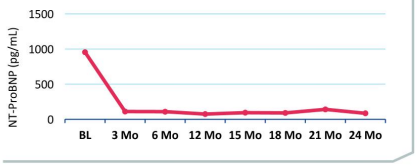
Biomarker: High-Sensitivity Troponin I
86% reduction



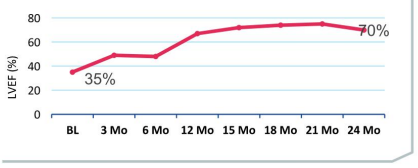
Cardiac MRI: LVMi
54% reduction



Biomarker: NT-Pro-BNP
91% reduction



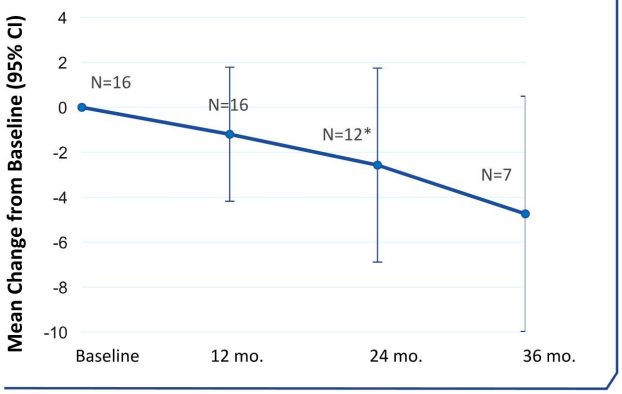
Cardiac MRI: LVEF



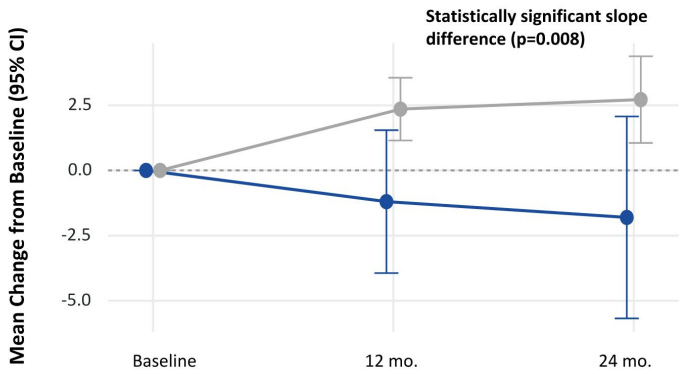
BL, Baseline; LVMi, Left ventricular mass index; LVEF, Left ventricular ejection fraction; MRI, Magnetic resonance imaging; NT-Pro-BNP, N-terminal pro-B-type natriuretic peptide.
Note: Data as of September 2026.

Sustained and deepening neurological improvement observed with LX2006 at 36 months

Mean change in mFARS:



Change in mFARS (Total):
Open Label Cohort (n=16) vs. UNIFAI Matched Control (n=44)[1]



- mFARS validated clinical scale measures FA neurological progression; higher scores represent disease worsening
- Among all participants with 24 months of follow-up (n=11), treatment with LX2006 resulted in a **mean improvement of 2.13 points per year, or 4.26 points over two years, on the mFARS scale compared to propensity-matched control**
- Among a subset of participants with **36 months of follow-up (n=7), treatment with LX2006 resulted in further improvement, with a mean change of over 4 points relative to baseline**

mFARS, Modified Friedreich Ataxia Rating Scale; PSM, propensity score matched.
Note: Data as of September 2026; *Participant #3 missed the Month 24 visit; Month 21 data were used instead.
1. 16 patients treated with LX2006 in the Open Label study were matched to a control group of individuals in the Friedreich Ataxia Global Clinical Consortium UNIFIED Natural History Study of Friedrich's Ataxia (UNIFAI) in a 3:1 ratio. While some patients did not have 2 years of follow up, this model is using every patient's earlier visits to inform the rate-of-change estimate for mFARS (an annualized slope). Analysis performed by Christian Rumney in partnership with FARA.

Finalized SUNRISE-FA 2 pivotal protocol and SAP for LX2006

SUNRISE FA2

- **Study design:** Open-label pivotal study with untreated control arm (no placebo or sham)
- **Dose:** 1.2x10^{12} vg/kg, one-time IV infusion
- **Sample Size:** 26 participants, 13 participants treated with LX2006
- **Key Eligibility Criteria:**
  - 16 years and older: Abnormal baseline LVMi, ≥2SD above normal mean
  - 6 to <16 years: Abnormal baseline LV wall thickness, assessed via echocardiography. Pediatric cohorts assessed primarily for safety
- **Primary Endpoint:** LVMi, via cMRI at 6 months
- **Statistical Analysis Plan:** Pivotal arms stratified to balance baseline LVMi
  - Study powered for 15% or greater LVMi change at 6 months
- **Key Secondary Endpoints:** mFARS, KCCQ, Hs-Troponin I, lateral wall thickness
- **Confirmatory Evidence Strategy:** Lexeo remains in ongoing discussions with the FDA regarding potential use of certain secondary endpoints at the 12-month time point in SUNRISE-FA 2 to support full approval

Expect topline data in the second half of 2027 and a potential BLA filing in the first half of 2028

Vg/kg, vector genomes per kilogram; LVMi, left ventricular mass index; cMRI, cardiac magnetic resonance imaging; mFARS, modified Friedreich Ataxia Rating Scale; KCCQ, Kansas City Cardiomyopathy Questionnaire; Hs, high sensitivity.

LEXEO therapeutics

SUNRISE-FA 2 is supported by clinical evidence, robust study design and execution readiness

Phase I/II LVMi Reductions Exceeded the Threshold Used to Power SUNRISE-FA 2

- ~18% LVMi reduction observed at 6 months, with ~28% reduction in higher dose cohorts (2 & 3) in patients with abnormal baseline LVMi[1]
- Effect exceeds both the 10% clinically meaningful benchmark and the 15% powering threshold for SUNRISE-FA 2
- LVMi has not been shown to improve without intervention

Observed Phase I/II efficacy exceeds assumptions incorporated into the pivotal study design

Study Design Maximizes Ability to Detect a Clinically Meaningful Treatment Effect

- Stratification ensures balanced distribution of disease severity and aligns study population
- Monte Carlo simulations support study assumptions

>99% of simulated trials met or exceeded the 15% powering threshold, with most outcomes exceeding by a wide margin

Execution Readiness With Clear Catalyst Path

- First SUNRISE-FA 2 participant enrolled in June 2026
- CLARITY-FA enrollment continues to advance and supports identification of eligible participants into pivotal study; 19 active sites across 8 countries
- Topline data expected in 2H 2027; potential BLA submission in 1H 2028

Operational infrastructure is in place to support key milestones through topline data and potential registration

Phase I/II data exceeded pivotal-study assumptions, statistical simulations demonstrate a high likelihood of achieving the primary endpoint, and operational execution is already underway, providing multiple independent sources of confidence in SUNRISE-FA 2

1 -Participant 11 6-month visit not conducted due to hurricane; 3-month visit used for 6 month mean calculation.

FA patients are highly concentrated and readily identifiable

FA Patient Populations



Patient Identification

- Majority of FA patients are managed at a limited number of specialized treatment centers
- Most target patients are genetically confirmed and actively followed at academic institutions
- Established partnerships with leading FA patient advocacy organizations facilitate patient identification and community outreach
- Existing relationships with multidisciplinary FA care teams, including cardiologists managing FA-CM, support efficient patient identification, evaluation and treatment activation

Addressable FA patients are concentrated within a small network of specialty centers, creating a clear and efficient path to patient identification, referral and treatment for LX2006 if approved

Sources: Data on file. Katharina Buesch & Rongrong Zhang (2022) A systematic review of disease prevalence, health-related quality of life, and economic outcomes associated with Friedreich's Ataxia, Current Medical Research and Opinion, 38:10, 1739-1749, DOI: 10.1080/03007995.2022.2112870.

LEXEO therapeutics

Strong path forward for LX2006



Clinical Development

SUNRISE-FA 2 Initiated with First Patient Enrolled in June 2026



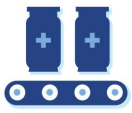
Clinical Results

Phase I/II Results Exceed the Effect Size in LVMi Used to Power the Pivotal Study



Commercial Preparation

Building Internal Commercial Capabilities to Support Successful Launch



Manufacturing & Supply

Differentiated AAVrh.10 Capsid and Commercial-Ready CMC Supply Chain

Next Steps

- Continued FDA engagement on confirmatory evidence strategy; update expected once finalized
- Topline data readout expected in **second half of 2027**
- Potential BLA submission under accelerated approval pathway in **first half of 2028**

EARLIER STAGE FRIEDREICH ATAXIA PROGRAMS



Lexeo's FA platform also includes four differentiated approaches to increasing or replacing frataxin for the treatment of FA

Program	Therapeutic approach	Stage	Route	Role in FA platform
LX3010 (MTL-104)	Oral combination designed to increase frataxin through complementary mechanisms	Clinical	Oral	Potential complementary oral approach
LX3030 (MTL-707)	Third-generation benzamide HDAC inhibitor designed to increase production of endogenous frataxin	Preclinical	Oral	Potential differentiated oral approach
LX3050 (MTL-501)	TfR1-targeted frataxin-replacement fusion protein	Preclinical	IV	Potential tissue-directed protein replacement
LX3070 (MTL-801)	TfR1-targeted antisense oligonucleotide for FXN mRNA stabilization	Discovery	IV	Potential CNS-directed RNA approach

Plan to prioritize investment on the opportunities with the strongest potential for clinical patient impact, regulatory success and shareholder value creation

HDAC, histone deacetylase; FXN, frataxin; TfR1, transferrin receptor 1; mFARS, modified Friedreich Ataxia Rating Scale.

Program highlights:
Differentiated oral approaches to increase frataxin



LX3010

Clinical-stage, oral combination designed to increase frataxin through complementary mechanisms

- Approximately six-point improvement in mFARS scores at 16 weeks
- Mean nine-fold increase in frataxin protein levels from baseline in muscle biopsies across 11 FA patients
- Convenient oral formulation designed with the needs of individuals with FA in mind
- Potential differentiated approach supported by both an early functional signal and evidence of increased FXN protein levels

Early functional and biological signals support the potential for a differentiated oral approach



LX3030

Third-generation oral small molecule (sub-500Da) designed to increase production of endogenous frataxin in the CNS

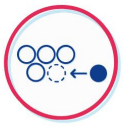
- Builds on prior scientific validation of the HDAC target class
- Designed to enhance frataxin upregulation and central nervous system exposure
- Preclinical studies demonstrated robust increases in frataxin
- Potential differentiated oral approach to addressing the neurological manifestations of FA

Differentiated oral profile combining robust frataxin upregulation with CNS exposure

mFARS, modified Friedreich Ataxia Rating Scale; FA, Friedreich ataxia; CNS, central nervous system; HDAC, histone deacetylase.

LEXEO therapeutics

Program highlights:
Complementary approaches to restore frataxin



LX3050

Preclinical recombinant human frataxin fused to a proprietary anti-TfR1 Fab, designed to directly replace deficient frataxin and increase delivery to the brain

- Directly replaces deficient frataxin rather than depending on increased endogenous production
- TfR1 brain shuttle supports delivery across the blood-brain barrier and into multiple disease-relevant tissues
- In vitro studies demonstrated dose-responsive improvements in measures of mitochondrial function

Direct protein replacement diversifies the platform beyond approaches that rely on endogenous frataxin production



LX3070

Discovery-stage ASO Fab conjugate program designed to stabilize FXN mRNA and increase translation of endogenous frataxin protein

- Differentiated RNA mechanism designed to increase the body's own production of frataxin
- Combines an RNA-targeted mechanism with a proprietary anti-TfR1 Fab
- In vitro studies demonstrated dose-responsive increases in frataxin
- Potential CNS-directed RNA approach that further diversifies Lexeo's multimodal FA platform

CNS-directed RNA stabilization creates an additional path to increasing endogenous frataxin

TfR1, transferrin receptor 1; ASO, antisense oligonucleotide; FXN, frataxin; CNS, central nervous system.

Lexeo's research collaborations also support sequential dosing of CNS-targeted gene therapy

Weill Cornell Medicine

Sequential dosing

Sponsored research agreement evaluating intra-cisternal administration of LX2006 following systemic dosing in large animal models.

Apertura GENE THERAPY

Blood Brain Barrier-Crossing Capsid

Option agreement providing the opportunity to secure a license to a novel IV, BBB-crossing capsid.

Vivet THERAPEUTICS

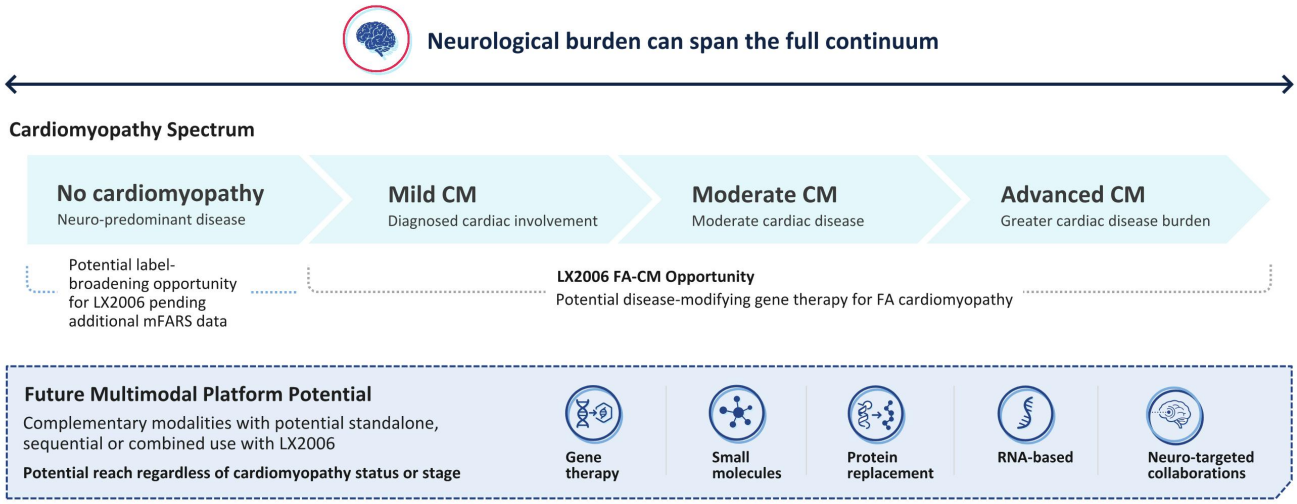
Novel immune suppression strategies

Option agreement providing the opportunity to secure an exclusive license to VTX-PID, an IgG-degrading enzyme.

CNS, central nervous system; IgG, immunoglobulin G.

LEXEO therapeutics

Unlocking the full spectrum of FA



LX2006 has the potential to serve as the cardiac foundation of a broader multimodal FA platform addressing both cardiac and neurological disease

FA, Friedreich ataxia; FA-CM, Friedreich ataxia cardiomyopathy; CM, cardiomyopathy; mFARS, modified Friedreich Ataxia Rating Scale.

PLAKOPHILIN 2 ARRHYTHMOGENIC CARDIOMYOPATHY

Gene Therapy LX2020

PKP2 arrhythmogenic cardiomyopathy is a progressive genetic heart disease with significant unmet need



Disease overview

- Rare, genetic cardiac disease
- Caused by loss of function mutations in the *PKP2* gene
- Progressive replacement of cardiac muscle with fatty fibrotic tissue[1,2]
- **~60,000** affected in the U.S.



Cardiac impact

- Disrupted electrical signaling → **ventricular arrhythmias and sudden cardiac death (SCD)**[1,2]
- **~23% of individuals present with SCD**[3,4]
- Progressive disease associated with **reduced quality of life**[3,4]



The unmet need

- **No therapies address the underlying genetic cause of ACM**
- Current management focuses on symptom control and SCD prevention (e.g., ICDs)[2,3]
- Disease progression continues despite intervention

PKP2-ACM has a clearly defined genetic cause alongside progressive, potentially life-threatening cardiac consequences, with no disease-modifying therapy today

ACM, arrhythmogenic cardiomyopathy; ICD, implantable cardioverter defibrillator; PKP2, Plakophilin-2; SCD, sudden cardiac death.

Sources: (1) Cedars-Sinai, 2023, Accessed from: https://www.cedars-sinai.org/health-library/diseases-and-conditions/a/arrhythmogenic-right-ventricular-dysplasia.html. (2) Corrado, D., et al. Cir Res, 2017;121:784-802; (3) Dalal, D. et al. Circulation, 2005;112:3823-3832. (4) Day, S.M., Circ: Cardiovasc Genet, 2012;5(1):2-4.

LEXEO therapeutics

Significant commercial potential for LX2020 given unmet need and global patient population

60K

Patients in the U.S.

Larger-rare, diagnosed population

>$4-6B

Total addressable market opportunity

Significant commercial upside at peak



Global prevalence

Pivotal study feasible across US, EU, Asia and other geographies



Trial ready

Broad patient pool expected to support rapid recruitment

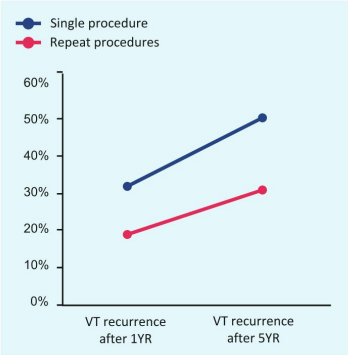


Manufacturing scale

Differentiated Lexeo process will enable rapid and cost-efficient supply

Current therapies may help manage arrhythmias, but limitations in durability, efficacy & tolerability leave a significant unmet need

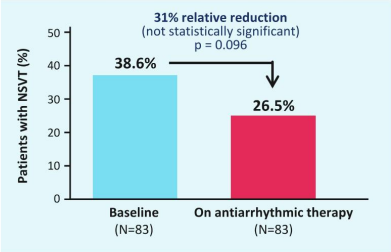
Severe arrhythmia recurrence common after ablation



50% VT recurrence reported within 5 years after a single procedure[1]

Limited reduction in NSVT burden with available drugs

Effect of antiarrhythmic therapy flecainide on NSVT in PKP2-ACM population
Largest available dataset[2]



~39% of those with PKP2-ACM experienced NSVT prior to treatment, and ~27% continued to experience NSVT after treatment (31% relative reduction)

Safety and tolerability may limit long-term use of AADs*

- Flecainide may increase the risk of **proarrhythmia and conduction abnormalities**
- Amiodarone is associated with **pulmonary, thyroid, hepatic, ocular, and dermatologic toxicities**, particularly with long-term use
- Chronic use may require **ongoing safety monitoring and treatment modification**
- **Existing therapies are not approved for ACM and are used off label**

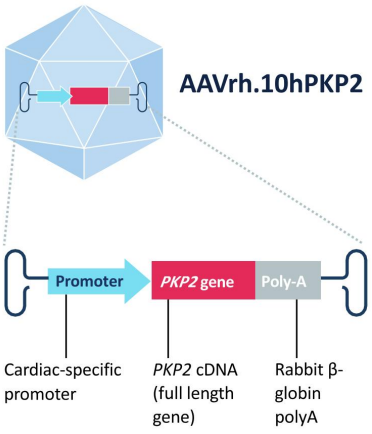
Existing therapies may reduce arrhythmia burden but overall efficacy in PKP2-ACM may be limited and certain AADs present tolerability concerns

Importantly, no existing therapies address the underlying genetic cause of ACM; Disease progression continues despite intervention

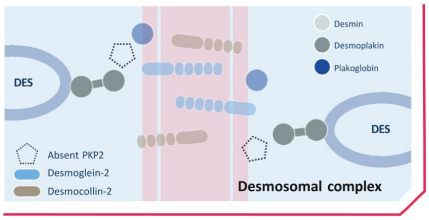
*AADs, aanti-arrhythmia drugs; ACM, arrhythmogenic cardiomyopathy.
Sources: (1) Daimee et al 2021 n=166. (2) Gaine et al. 2025, N=83.

LX2020 delivers a full-length PKP2 gene to cardiomyocytes, restoring the desmosome

LX2020 construct:

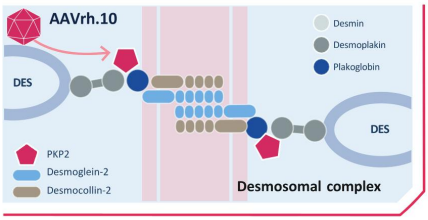


PKP2-ACM:



Absence of PKP2 results in impairment of cardiac desmosomes, leading to abnormal cardiac rhythms (arrhythmias) and onset of cardiac dysfunction

LX2020 mechanism:



PKP2 expression **is expected to restore the balance of desmosomal proteins** by scaffolding adjacent cell-cell junctional proteins

The restoration of PKP2 may lead to **improvement in cardiac electrical and mechanical function** as well as **inhibit further structural damage**

AAV, Adeno-Associated Virus; PKP2, Plakophilin-2; cDNA, Copy DNA; Poly-A, Poly Adenosine, ACM; arrhythmogenic cardiomyopathy.

LX2020 is being evaluated in an ongoing Phase I/II study: HEROIC-PKP2

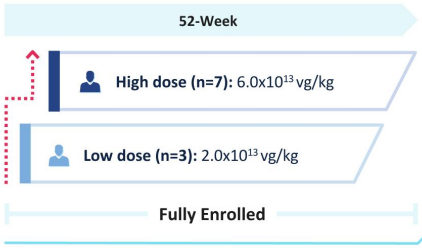
1 Study Design & Objective

Design:

52-week open-label study with a **4-year** long term follow up

Objective:

To assess the **safety** and **efficacy** of LX2020 in individuals with PKP2-ACM



2 Key Inclusion Criteria

- Adults (18-65 years)
- Diagnosis of ACM with documented *PKP2* mutation
- Existing ICD that is MRI compatible
  Minimum threshold of PVCs/24-hr
- Neutralizing anti-AAVrh.10 titer cutoff

3 Key Measurements

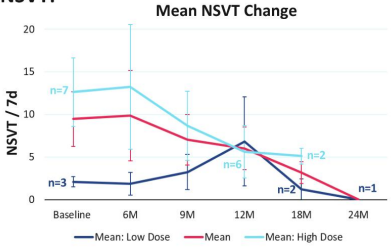
- Ventricular arrhythmias and associated measures (PVC, NSVT, VT, QRS)
- Cardiac structure & function (EF, EDV, ESV, RV strain)
- Change in symptoms (NYHA Class and PROs)
- Vector Transduction & Expression

ACM, arrhythmogenic cardiomyopathy; ICD, implantable cardioverter defibrillator; PVC, premature ventricular contraction; NSVT, non-sustained ventricular tachycardia; VT, ventricular tachycardia; EF, ejection fraction; EDV, end-diastolic volume; ESV, end-systolic volume; RV, right ventricular; NYHA, New York Heart Association; PROs, patient reported outcomes.
Note: LX2020 is administered systemically; participants receive immune suppression with prednisone and sirolimus on the day prior to treatment through ~14 weeks following LX2020 dosing.
Lexeo has also sponsored SNAPSHOT, a retrospective EMR review and prospective observational natural history study (n=15).

Interim LX2020 data demonstrate clinically meaningful reductions in severe arrhythmia burden

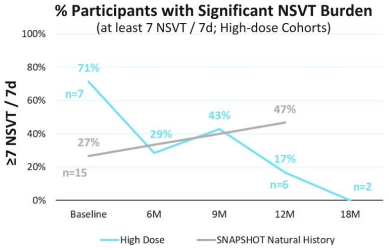
NSVT:

Mean NSVT Change



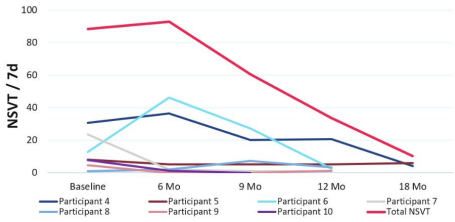
- **Deepening NSVT reduction over time with 80% mean reduction** at latest visit in high-dose cohorts (n=7); 53% increase in NSVT at 12 months in SNAPSHOT natural history study (n=15)

% Participants with Significant NSVT Burden
(at least 7 NSVT / 7d; High-dose Cohorts)



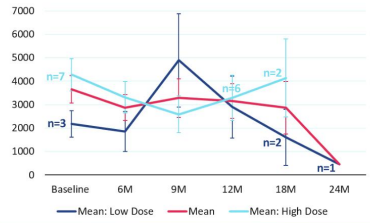
- **5 of 6 participants experienced <1 NSVT per day at 12 months**, a clinically relevant threshold to predict risk of future sustained and life-threatening arrhythmias

NSVT Change Per Participant



- **NSVT improved in 6/7 participants** at latest visit relative to baseline; **in most participants, NSVT reductions were substantial**

Mean PVC Change:



LX2020 generally well tolerated

- LX2020 generally well tolerated across 10 participants dosed
- No clinically significant complement activation
- No study discontinuations
- Previously disclosed LFT elevations observed in high-dose cohorts were successfully managed per protocol with no hospitalizations or complications
- One previously disclosed Grade 3 SAE of sustained ventricular tachycardia (VT), consistent with the natural course of PKP2-ACM

Sources: (1) Gasperetti A, et al. JAMA Cardiol. 2022;7(4):378-385.
Note: Data as of October 15, 2026. Participant 3 (low dose) declined 18-month follow up visit but is expected for 24-month follow up.
NSVT, non-sustained ventricular tachycardia; PVC, premature ventricular contraction; LFT, liver function tests; SAE, serious adverse event; ACM, arrhythmogenic cardiomyopathy.

Strong path forward for LX2020

1

Meaningful Clinical Activity

LX2020 continues to demonstrate improvements across multiple measures of disease burden and patient experience

2

Increasing Confidence in Dataset

Additional follow-up strengthens the durability, consistency, and overall benefit-risk profile of LX2020

3

Clear Path Forward

FDA open to guideline-defined NSVT[1] as a primary surrogate endpoint to support potential accelerated approval of LX2020

Interim HEROIC-PKP2 data continue to support LX2020's potential as the first disease-modifying therapy for PKP2-ACM

Sources: Al-Khatib SM, et al. Circulation. 2018;138:e272–e391. Carrick RT, et al. Circ Arrhythm Electrophysiol. 2022;15:e011207.

(1) NSVT defined in guidelines as hemodynamically stable ventricular tachycardia at a rate of >100 beats per minute, lasting three or more beats and less than 30 seconds.

PRECLINICAL CARDIAC PROGRAMS

Lexeo is also advancing two preclinical cardiac gene therapy programs

LX2021

DSP (Desmoplakin) Cardiomyopathy

- Significant unmet need characterized by extensive fibrosis, high arrhythmic risk and substantial heart failure burden
- 30-50% mortality within 5 years of diagnosis for dilated phenotype
- ~35K patients in the U.S.
- IND-enabling studies ongoing

LX2022

Hypertrophic Cardiomyopathy

- TNNI3 variants compose 3-5% of all HCM cases, causing cardiomyopathy, clinical heart failure and shortened lifespan
- Non-obstructive phenotype, often with preserved ejection fraction; myosin inhibitors not effective
- ~25K patients in the U.S.

+Research collaboration with Johnson & Johnson exploring novel routes of administration for cardiac AAV gene therapy to maximize safety and efficacy

THANK YOU