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): August 06, 2026

PepGen Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware	**001-41374**	**85-3819886**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

321 Harrison Avenue **8th Floor** **Boston, Massachusetts** **(Address of Principal Executive Offices)**	**02118** **(Zip Code)**

Registrant's Telephone Number, Including Area Code: (781) 797-0979

(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, par value $0.0001 per share	PEPG	Nasdaq Global Select 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 August 6, 2026, PepGen Inc. (the "Company") announced its financial results for the quarter ended June 30, 2026 and other business updates and issued a press release titled "*PepGen Reports Second Quarter 2026 Financial Results and Recent Corporate Highlights*." A copy of the press release is furnished as Exhibit 99.1.

The information in Item 2.02 of this Current Report on Form 8-K (this "Form 8-K"), including Exhibit 99.1, 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 into any of the Company's filings under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 7.01 Regulation FD Disclosure.

On August 6, 2026, the Company updated its Corporate Presentation in connection with recent corporate updates, a copy of which is being furnished as Exhibit 99.2.

The information in Item 7.01, in this Form 8-K, including Exhibit 99.2, is intended to be furnished and 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 it be deemed incorporated by reference in any filing under the Securities Act or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 8.01 Other Events.

On August 6, 2026, the Company announced that an independent Data and Safety Monitoring Board (the "DSMB") has recommended advancing the ongoing Phase 2 FREEDOM2-DM1 study into the third and highest multiple ascending dose ("MAD") cohort of 12.5 mg/kg, with no recommended changes to the study protocol. The DSMB also recommended dose escalation in the open-label extension ("OLE") study from 5 mg/kg to 10 mg/kg. A copy of the press release issued in connection with the announcement is attached as Exhibit 99.3 to this form 8-K and incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

d) Exhibits

Exhibit Number	**Description**
99.1	Press release issued by PepGen Inc. on August 6, 2026 titled "PepGen Reports Second Quarter 2026 Financial Results and Recent Corporate Highlights"
99.2	Corporate Presentation updated as of August 2026
99.3	Press release issued by PepGen Inc. on August 6, 2026 titled "PepGen to Advance PGN-EDODM1 into Highest Dose Cohort in Phase 2 FREEDOM2-DM1 Study Following DSMB Review"
104	Cover Page Interactive Data File (embedded within 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.

PepGen Inc.

Date: August 6, 2026

By: /s/ Noel Donnelly
Noel Donnelly, Chief Financial Officer

PepGen Reports Second Quarter 2026 Financial Results and Recent Corporate Highlights

– DSMB recommends advancement of PGN-EDODM1 into the highest dose cohort in the FREEDOM2-DM1 study, as well as FREEDOM-OLE dose escalation from 5 mg/kg to 10 mg/kg –

– 10 mg/kg FREEDOM2-DM1 cohort fully enrolled, with 7 of 8 participants having completed dosing; data expected in November –

– Results from 12.5 mg/kg FREEDOM2-DM1 cohort expected in 1H 2027 –

– Well-funded with $117.2M of cash as of June 30, 2026, sufficient to fund operations into the fourth quarter of 2027 –

BOSTON— August 6, 2026-- PepGen Inc. (Nasdaq: PEPG), a clinical-stage biotechnology company advancing the next generation of oligonucleotide therapies with the goal of transforming the treatment of severe neuromuscular and neurological diseases, today reported financial results for the quarter ended June 30, 2026 and recent corporate highlights.

"During the second quarter, our team maintained a strong focus on execution as we advanced FREEDOM2 and continued preparing for our next clinical data readout," said James McArthur, PhD, President and Chief Executive Officer of PepGen. "The DSMB's recommendation to dose escalate in both FREEDOM2 and the open-label extension reflects the encouraging safety profile of PGN-EDODM1 following several months of repeat dosing. We look forward to initiating enrollment in the 12.5 mg/kg cohort shortly and sharing data from the 10 mg/kg cohort in November. We remain confident that repeat dosing has the potential to build on the clinical foundation established in the FREEDOM single-ascending dose trial as we continue evaluating the safety and benefits of PGN-EDODM1 for individuals living with DM1."

Recent Program Updates

PGN-EDODM1: Myotonic Dystrophy Type 1 (DM1)

- **FREEDOM2 Phase 2 Multiple Ascending Dose (MAD) Randomized, Placebo-Controlled Clinical Trial of PGN-EDODM1:**
  - PepGen has fully enrolled the 10 mg/kg MAD cohort of FREEDOM2, with 7 of 8 participants having completed dosing. Data from this cohort is on track to be reported in November.
  - Based on the review of available safety data from the 10 mg/kg MAD cohort and the open-label extension (OLE) study, an independent Data and Safety Monitoring Board (DSMB) recommended advancing the FREEDOM2 trial into the third and highest dose cohort (12.5 mg/kg). The DSMB also approved dose escalation in the OLE study from 5 mg/kg to 10 mg/kg. Read the full release here.
  - Results from the 12.5 mg/kg cohort of FREEDOM2 are expected in the first half of 2027. Pending results from Cohorts 2 and 3, PepGen plans to engage with regulators in an end of Phase 2 (EOP2) meeting to discuss plans for the registrational program.

- Update from the OLE study is expected by early January. In the OLE, 6 of 8 participants from the 5 mg/kg FREEDOM2 cohort have elected to enroll, bringing total OLE enrollment to 16 participants.

Corporate Updates

- In May 2026, PepGen presented a late-breaking oral and poster presentation featuring data from its PGN-EDODM1 program at the 15th International Myotonic Dystrophy Consortium (IDMC-15). The late-breaking oral session included analyses of individual patient mis-splicing data from the PGN-EDODM1 program, as well as natural history data characterizing mis-splicing in patients with DM1. Ahead of IDMC-15, PepGen's President and Chief Executive Officer, James McArthur, PhD, presented single and initial multiple ascending dose data for PGN-EDODM1 at the 6th Annual Pharma Day, co-hosted by Euro-DyMA and the Myotonic Dystrophy Foundation. Presentation materials are available on PepGen's website under Scientific Publications. Read the full release here.

Financial Results for the Three Months Ended June 30, 2026

- **Cash, Cash Equivalents and Marketable Securities** were $117.2 million as of June 30, 2026. Based on currently planned operations, PepGen believes that its existing cash, cash equivalents, and marketable securities will be sufficient to fund its operations into the fourth quarter of 2027.
- **Research and Development Expenses** were $12.5 million for the three months ended June 30, 2026, compared to $18.4 million for the same period in 2025.
- **General and Administrative Expenses** were $6.4 million for the three months ended June 30, 2026, compared to $5.5 million for the same period in 2025.
- **Net Loss** was $17.8 million, or $(0.26) basic and diluted net loss per share, for the three months ended June 30, 2026, compared to $23.1 million, or $(0.70) basic and diluted net loss per share, for the same period in 2025. PepGen had approximately 69.3 million shares outstanding on June 30, 2026.

About PGN-EDODM1

PGN-EDODM1, PepGen's investigational candidate in development for the treatment of DM1, utilizes PepGen's proprietary EDO technology to deliver a therapeutic oligonucleotide that is designed to restore the normal splicing function of MBNL1, a key RNA splicing protein. PGN-EDODM1 addresses the deleterious effects of cytosine-uracil-guanine (CUG) repeat expansion in the dystrophia myotonica protein kinase (DMPK) transcripts which sequester MBNL1, by binding to the pathogenic CUG trinucleotide repeat expansion present in the DMPK transcripts and disrupting the binding between the CUG repeat expansion and MBNL1. PepGen believes this innovative therapeutic approach may have considerable advantages over oligonucleotide modalities that rely on knockdown or degradation of the DMPK transcripts as it will allow the DMPK transcripts to continue to perform their normal function within the cell, while also liberating MBNL1 to correct downstream mis-splicing events. The U.S. Food and Drug Administration has granted PGN-EDODM1 both Orphan Drug and Fast Track Designations for the treatment of patients with DM1. The European Medicines Agency (EMA) has recently granted Orphan Designation for PGN-EDODM1.

About PepGen

PepGen Inc. is a clinical-stage biotechnology company developing the next generation of oligonucleotide therapies with the goal of transforming the treatment of severe neuromuscular and neurological diseases. PepGen's Enhanced Delivery Oligonucleotide (EDO) platform is founded on over a decade of research and

development and leverages cell-penetrating peptides to improve the uptake and activity of conjugated oligonucleotide therapeutics. Using these EDO peptides, PepGen is generating a pipeline of oligonucleotide therapeutic candidates designed to target the root cause of serious diseases.

For more information, please visit *PepGen.com*. Follow PepGen on *LinkedIn* and *X*.

Forward-Looking Statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. These statements may be identified by words such as “aims,” “anticipates,” “believes,” “could,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “plans,” “possible,” “potential,” “seeks,” “will,” and variations of these words or similar expressions that are intended to identify forward-looking statements. Any such statements in this press release that are not statements of historical fact may be deemed to be forward-looking statements. These forward-looking statements include, without limitation, statements regarding whether repeat dosing has the potential to build on the clinical data from the FREEDOM trial, expected timelines for data reports from our FREEDOM2-DM1 trial, including the 10 mg/kg MAD cohort of FREEDOM2 trial and dose escalated 12.5 mg/kg FREEDOM2 trial as well as the OLE trial for PGN-EDODM1, initiation of the 12.5 mg/kg FREEDOM2 cohort of the FREEDOM2 study, forecasts relating to PepGen’s cash runway, and ongoing and planned regulatory timelines and interactions.

Any forward-looking statements in this press release are based on current expectations, estimates and projections only as of the date of this release and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to risks related to: delays or failure to successfully initiate or complete our ongoing and planned development activities for our product candidates, including PGN-EDODM1; our ability to enroll patients in our clinical trials, including FREEDOM2; that our interpretation of clinical and preclinical study results may be incorrect, or that we may not observe the levels of therapeutic activity in clinical testing that we anticipate based on prior clinical or preclinical results, including for PGN-EDODM1; our product candidates, including PGN-EDODM1, may not be safe and effective or otherwise demonstrate safety and efficacy in our clinical trials; adverse outcomes from our regulatory interactions, including delays in regulatory review, clearance to proceed or approval by regulatory authorities with respect to our programs, including clearance to commence planned clinical studies of our product candidates, or other regulatory feedback requiring modifications to our development programs, including in each case with respect to our PGN-EDODM1 program; changes in regulatory framework that are out of our control; unexpected increases in the expenses associated with our development activities or other events that adversely impact our financial resources and cash runway; and our dependence on third parties for some or all aspects of our product manufacturing, research and preclinical and clinical testing. Additional risks concerning PepGen’s programs and operations are described in our most recent reports filed with the SEC. PepGen explicitly disclaims any obligation to update any forward-looking statements except to the extent required by law.

This release discusses PGN-EDODM1, an investigational therapy that has not been approved for use in any country and is not intended to convey conclusions about its efficacy or safety. There is no guarantee that PGN-EDODM1 or any other investigational therapy will successfully complete clinical development or gain regulatory authority approval.

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Condensed Consolidated Statements of Operations
(unaudited, in thousands)

	Three Months Ended June 30,	
	2026	**2025**
Operating expenses:		
Research and development	$ 12,522	$ 18,391
General and administrative	6,417	5,541
Total operating expenses	$ 18,939	$ 23,932
Operating loss	$ (18,939)	$ (23,932)
Other income (expense)		
Interest income	1,093	842
Other (expense) income, net	50	3
Total other income, net	1,143	845
Net loss before income tax	$ (17,796)	$ (23,087)
Income tax expense	(16)	—
Net loss	$ (17,812)	$ (23,087)
Net loss per share, basic and diluted	$ (0.26)	$ (0.70)
Weighted-average common stock outstanding, basic and diluted	69,202,376	32,748,646

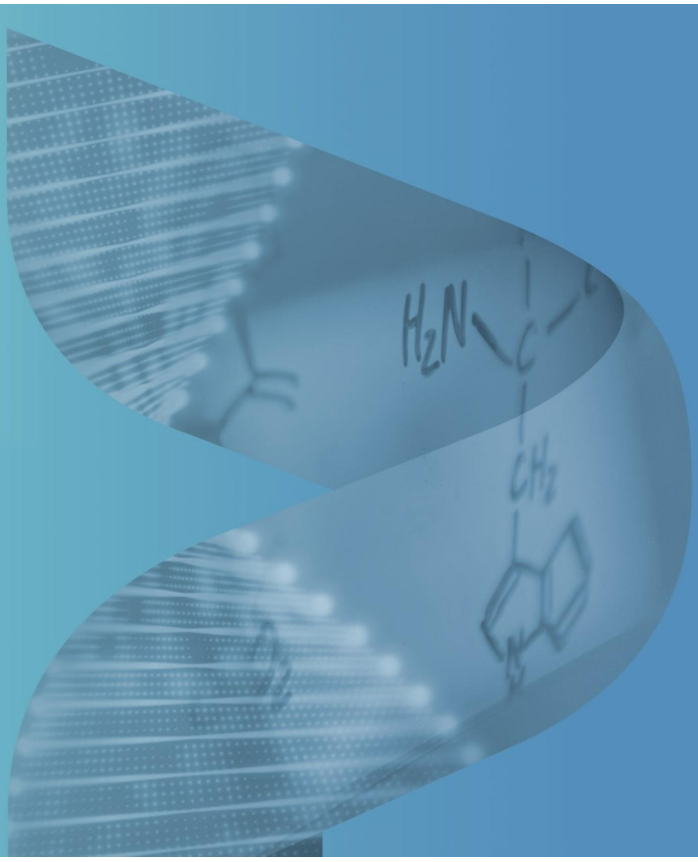
Condensed Consolidated Balance Sheets
(unaudited, in thousands)

	June 30, 2026	**December 31, 2025**
Assets		
Cash, cash equivalents and marketable securities	$ 117,238	$ 148,456
Other assets	24,159	25,451
Total assets	$ 141,397	$ 173,907
Liabilities and stockholders' equity		
Liabilities	$ 21,864	$ 26,463
Stockholders' equity	119,533	147,444
Total liabilities and stockholders' equity	$ 141,397	$ 173,907

PepGen™

Company Presentation

August 2026



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Any forward-looking statements in this presentation are based on current expectations, estimates and projections only as of the date of this presentation and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to: delays or failure to successfully initiate or complete our ongoing and planned development activities for our product candidates, including PGN-EDODM1; our ability to enroll patients in our clinical trials, including FREEDOM2, that our interpretation of clinical and preclinical study results may be incorrect, or that we may not observe the levels of therapeutic activity in clinical testing that we anticipate based on prior clinical or preclinical results, including for PGN-EDODM1; our product candidates, including PGN-EDODM1, may not be safe and effective or otherwise demonstrate safety and efficacy in our clinical trials; adverse outcomes from our regulatory interactions, including delays in regulatory review, clearance to proceed or approval by regulatory authorities with respect to our programs, including clearance to commence planned clinical studies of our product candidates, including release of the partial clinical hold placed by FDA on the FREEDOM2 study, or other regulatory feedback requiring modifications to our development programs, including with respect to the FREEDOM2 program; changes in regulatory framework that are out of our control; our ability to obtain, maintain and protect our intellectual property; our ability to enforce our patents against infringers and defend our patent portfolio against challenges from third parties; competition from others developing therapies for the indications we are pursuing; unexpected increases in the expenses associated with our development activities or other events that adversely impact our financial resources and cash runway; and our dependence on third parties for some or all aspects of our product manufacturing, research and preclinical and clinical testing. Additional risks concerning PepGen's programs and operations are described in our most recent filings with the SEC. PepGen explicitly disclaims any obligation to update any forward-looking statements except to the extent required by law.

This presentation discusses PGN-EDODM1, an investigational therapy, that has not been approved for use in any country, and is not intended to convey conclusions about their efficacy or safety. There is no guarantee that PGN-EDODM1 or any other investigational therapy will successfully complete clinical development or gain regulatory authority approval.

Leveraging EDO Platform to Drive Meaningful Impact for Patients

OUR VISION

Develop therapies that **address the root cause** of serious genetic neuromuscular and neurological diseases—driving meaningful, functional improvement

Backed by a team of **leading neuromuscular researchers** with deep expertise in genetic disease biology and oligonucleotide drug development

Strong cash runway into the **4Q 2027**

EDO PLATFORM

Achieving **superior nuclear delivery and uptake** of therapeutic oligonucleotides, overcoming key limitations of prior approaches

PGN-EDODM1: *Myotonic Dystrophy Type 1*

- Best-in-class potential; selectively targets only pathogenic *DMPK* RNA
- Favorable emerging safety profile and FREEDOM2 5 mg/kg results supportive of the ongoing dosing in 10 mg/kg MAD cohort
- FREEDOM2 cleared in South Korea, Australia, and New Zealand; enrollment open and active in Canada, UK, and South Korea
- Orphan Drug & Fast Track Designation (U.S.); Orphan Designation (EU)

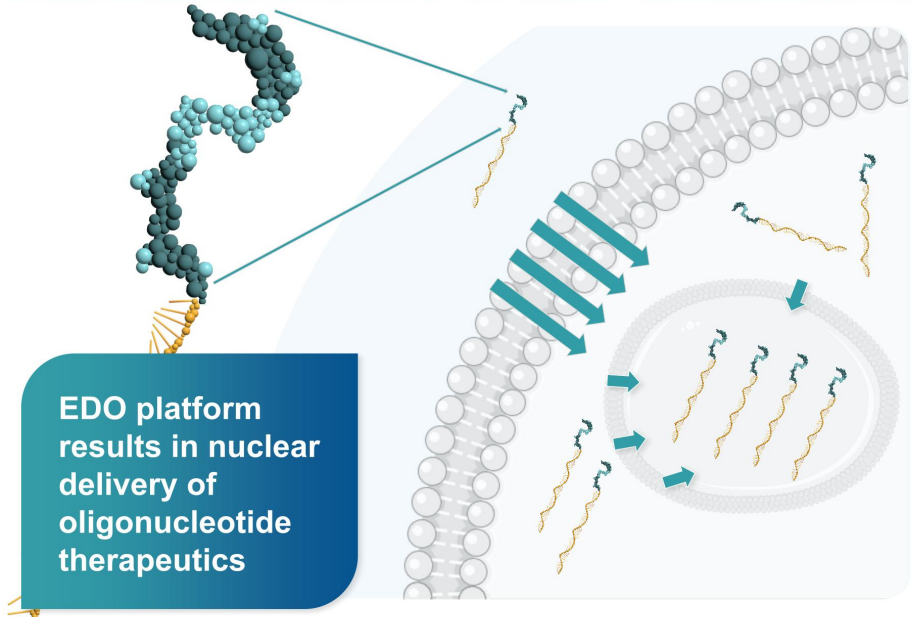
Anticipated Upcoming Milestones

- **November:** FREEDOM2 10 mg/kg clinical results
- **Early January:** Update from the open-label extension
- **1H 2027:** FREEDOM2 12.5 mg/kg clinical results

Research Pipeline

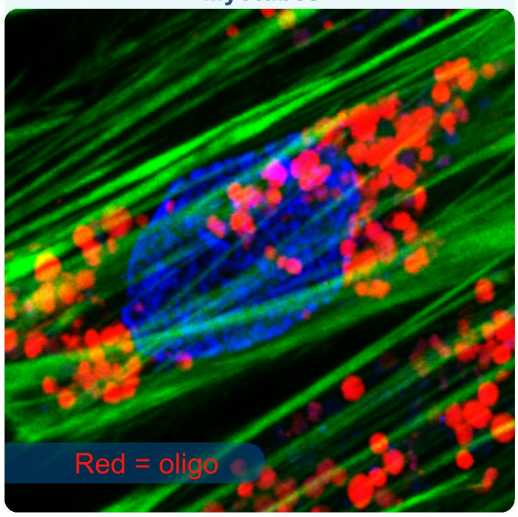
- Developing research pipeline that applies platform differentiators to address underlying neuromuscular disease drivers
- Exploring EDO's potential in genetic conditions, including Charcot-Marie-Tooth disease

PepGen's EDO Platform Has Been Designed and Developed to Solve the Delivery Challenge of Oligonucleotides



EDO platform results in nuclear delivery of oligonucleotide therapeutics

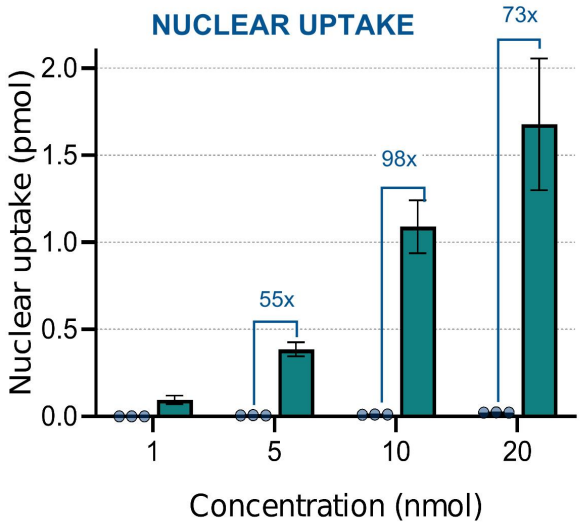
PGN-EDODM1 Delivery to DM1 Patient Myotubes



Immortalized myoblasts from a DM1 patient with 2600 CTG repeats were cultured then differentiated for 4 days into myotubes and then treated with fluorescently tagged PGN-PMODM1 (PMO) or PGN-EDODM1 (PPMO) at 10 uM. Cells were visualized by confocal microscopy 24h after treatment.

EDO Technology Can Improve Endosomal Escape and Has Been Shown to Increase Nuclear Uptake up to 98-Fold

PMO Delivery in DM1 Cells



Immortalized myoblasts from a healthy individual or a DM1 patient with 2600 CTG repeats were cultured then differentiated for 4 days into myotubes and then treated with fluorescently tagged PGN-PMODM1 (PMO) or PGN-EDODM1 (PPMO) at concentrations detailed above. Cells were visualized by confocal microscopy 24h after treatment. Graphs are presented as mean ± SD.

PGN-EDODM1: A Differentiated Drug with Best-in-Class Potential

1 Differentiated Delivery Technology

- **Receptor-independent EDO peptide delivery**
- Designed to escape the endosome – unlike TfnR targeting

2 Differentiated Target

- **Selectively targets pathogenic RNA** (CUG repeat in *DMPK*)
- Demonstrated highest rate of splicing correction ever reported in DM1 after a single dose[1]

3 Cost Effective Manufacturing

- **EDO peptide is a short linear peptide** – not cell culture product

1. FREEDOM 15 mg/kg data readout when compared with prior published data.

PGN-EDODM1 –
Myotonic Dystrophy Type 1 (DM1)

Myotonic Dystrophy Type 1 Overview and Unmet Medical Need


Jubal, retired professor living with DM1

DM1 Overview

- **Caused by CTG expansion in the *DMPK* gene**, resulting in pathogenic *DMPK* transcripts driving disease pathology
- **More than 110,000 patients** affected in the U.S. and EU
- Symptoms can develop from childhood through adulthood, with **significant variability in disease presentation and progression**
- **Average life expectancy is 50–60 years** in patients with non-congenital DM1
- **No approved therapies** currently address the underlying cause of the disease

Sources: Neuroepidemiology (2022) 56 (3): 163–173., Neurology 2021 Feb 16;96(7):e1045-e1053
CUG: cytosine-uracil-guanine; *DMPK*: dystrophia myotonica protein kinase

DM1's Broad, Multisystemic Symptoms Underscore the Need for a Disease-Modifying Therapy

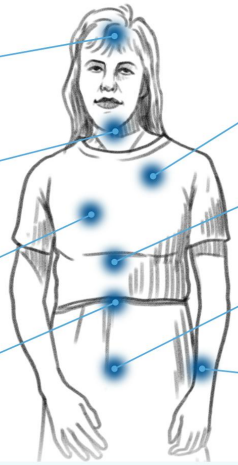
DM1 SYMPTOMS

CNS: fatigue, daytime sleepiness, difficulty concentrating, hypersomnia, learning difficulties

Speech and Swallowing: dysphagia, aspiration, dysarthria

Respiratory: sleep apnea, lung infections

Muscle: myotonia, weakness, wasting, myalgia, facial myopathy, balance issues



Cardiovascular: cardiac conduction issues

Gastrointestinal: constipation, diarrhea, abdominal pain

Reproductive: low testosterone, gynecological problems

Other: eyes (cataracts), skin, bones, increased cancer risk

Impact on Daily Living Mobility, ability to tend to household and personal needs, executive function and memory, communication, and socialization.

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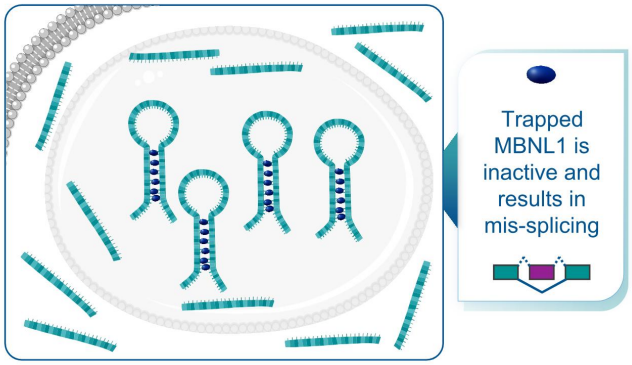
Source: Christopher Project Reference Group. The myotonic dystrophy experience: a North American cross-sectional study. *Muscle Nerve*. 2019;59(4):457-464. doi:10.1002/mus.26420.

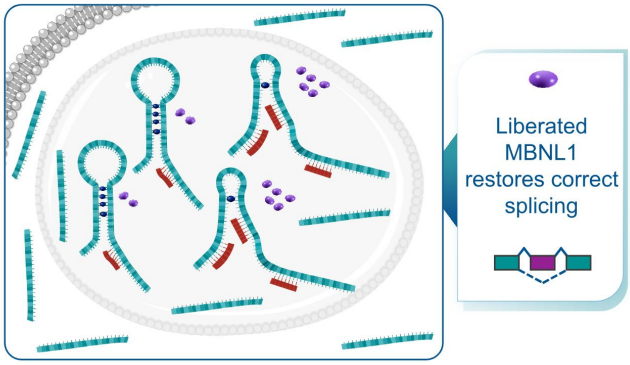
PGN-EDODM1 Blocking Approach Targets the Pathogenic CUG^{exp} Repeats *DMPK* RNA

DM1 is caused by pathogenic *DMPK* transcripts



- DM1 is caused by pathogenic *DMPK* transcripts containing CUG^{exp} repeat sequences that form hairpin loops
- These hairpin loops trap MBNL1 proteins that are needed for correct splicing of mRNAs

PGN-EDODM1 binds selectively to the pathogenic *DMPK* transcript



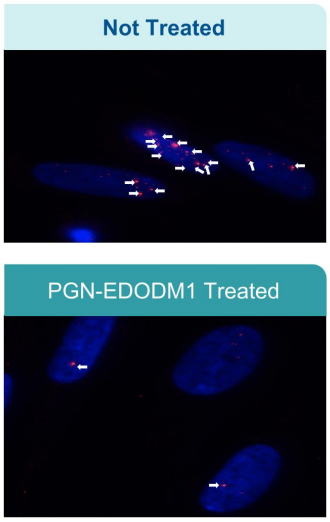
- PGN-EDODM1 binds selectively to the pathogenic *DMPK* transcript
- This reduces the ability of the CUG^{exp} repeats to form hairpin loops and sequester RNA splicing proteins

DMPK transcript | Bound MBNL1 (inactive) | PGN-EDODM1 | Free MBNL1 (active)

Wojciechowska, et al., Quantitative Methods to Monitor RNA Biomarkers in Myotonic Dystrophy, *Nature*, April 12, 2018

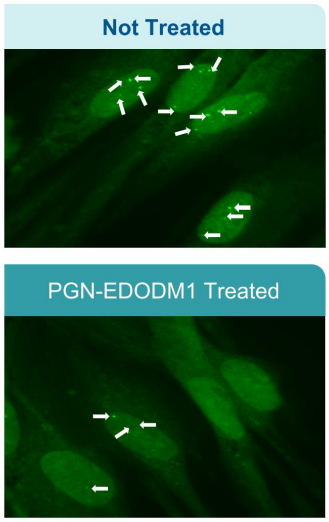
PGN-EDODM1 Reduced Pathogenic Nuclear Foci, Liberated MBNL1 and Corrected Mis-Splicing in Patient Cells with Long CUG Repeats

Foci Reduction



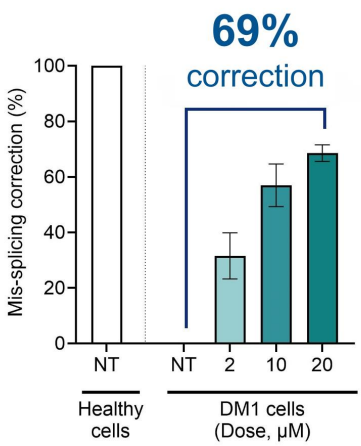
54%
reduction in toxic foci

MBNL1 Liberation



Mis-Splicing Correction

Across multiple transcripts



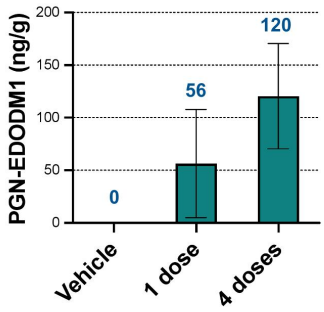
PepGen™

Immortalized myoblasts from healthy individual or DM1 patient with 2600 CTG repeats were cultured then differentiated for 4 days into myotubes. Treatment with peptide-PMO conjugates at concentrations given. Cells were harvested for analysis 24h after treatment. RNA isolation, RT-PCR and capillary electrophoresis (QIAxcel) analysis were performed. Visualization with FISH and immunofluorescence microscopy. Mean ± SD; n = 5 per group.

Multiple Doses of PGN-EDODM1 Led to Greater Improvement in Splicing Correction and Myotonia vs Single Dose in Preclinical Studies

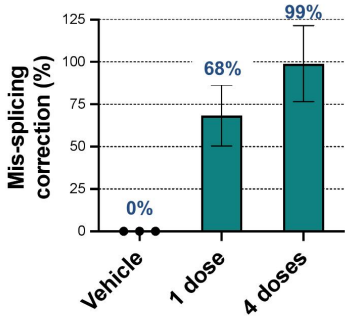
Tissue Concentration

Skeletal muscle



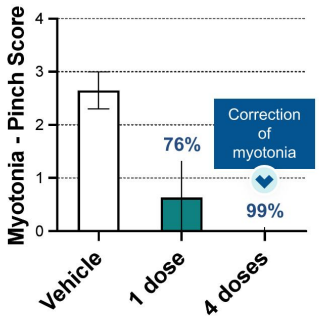
Mis-Splicing Correction

Across multiple transcripts



Correction of Myotonia

Pinch test



Protocol: HSA^{LR} mice received 1 or 4 doses of PGN-EDODM1, with 4-week intervals between doses. Skeletal muscle tissues were collected 4 weeks post-final dose. Skeletal muscle tissue concentration was measured by fluorescent based HPLC method. Graph is presented as mean ± SD; n = 8-12 per cohort. Mis-splicing analysis considers multiple transcripts. Graph is presented as mean ± SD; n = 8-12 per cohort per transcript. Action myotonia evaluation (pinch test) was performed 4 weeks post-final dose. Grade 3 =Clear sign of myotonia strong AND reproducible, Grade 2 = Clear sign of myotonia, strong OR reproducible, Grade 1 = Clear sign of myotonia but non reproducible, Grade 0 = No sign of myotonia.Graphs are presented as mean ± SD; n = 12-43 per cohort.

PGN-EDODM1 –
FREEDOM SAD Trial in DM1

FREEDOM: Phase 1 PGN-EDODM1 Single-Ascending Dose Study Design

Freedom
DM1

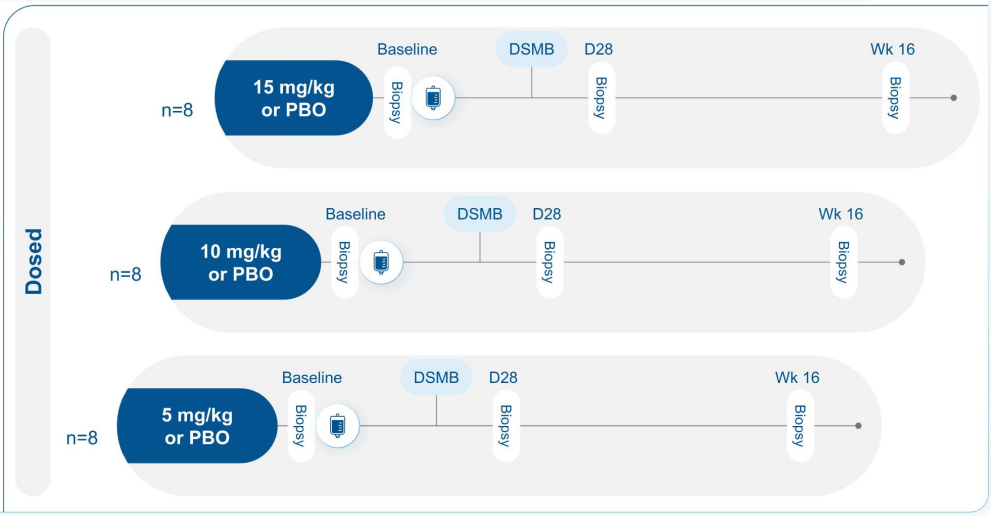
Multinational, randomized, double-blind, placebo-controlled SAD study in patients

Single IV administration of PGN-EDODM1

Muscle biopsies in tibialis anterior at Baseline, Day 28, Week 16

Safety, PK, correction of mis-splicing, initial functional assessments

Single Dose PGN-EDODM1 or Placebo (randomized 3:1)

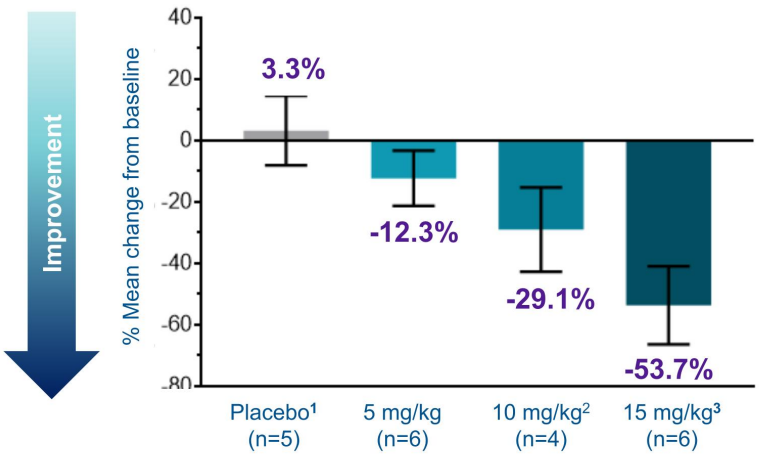


PepGen™ DSMB: data safety monitoring board; IV: intravenous; PBO: placebo; SAD: single-ascending dose; PK: pharmacokinetics

PGN-EDODM1 dose

PGN-EDODM1 Produced Dose-Dependent Best-in-Class Splicing Correction Following Single Dose

Splicing Index Changes: 22-Gene Panel* at D28

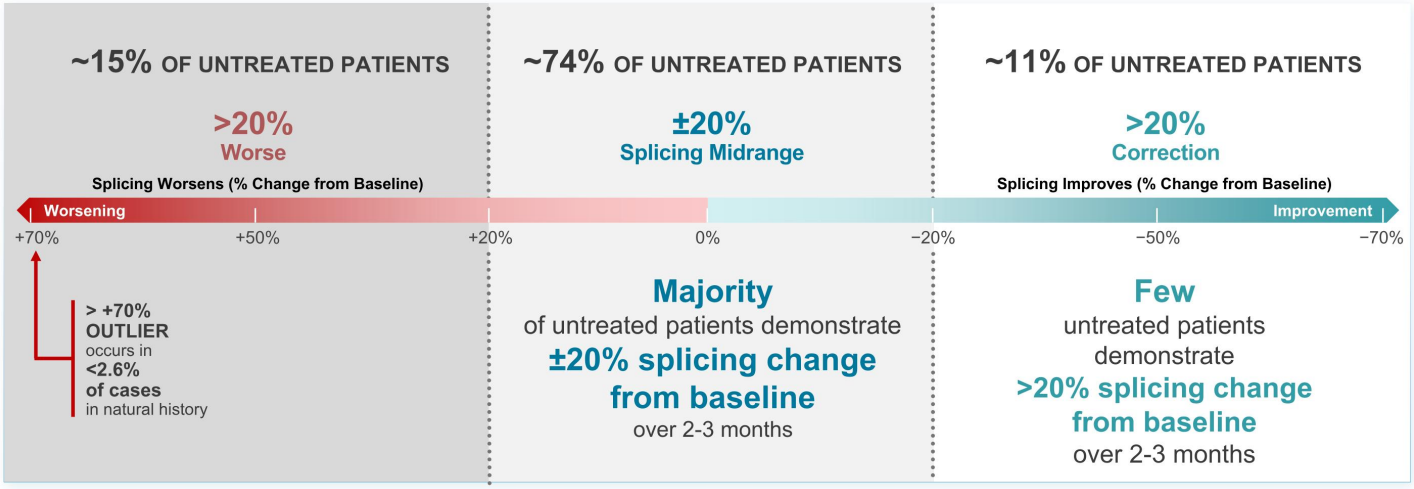


87.5%
of participants across all doses showed improved splicing

1.Missing samples due to unavailability of biopsy tissue or sample outside of assay window.
2. One subject at 10 mg/kg biopsy was not collected at day 28 due to pseudoaneurysm in connection with biopsy and one participant's splicing index fell below the pre-specified assay range at baseline and at day 28 (indicating no detectable mis-splicing)
3.One subject at 15mg/kg received 77% of the dose and was still included in the splicing index change analysis for the cohort
*Provenzano et al., The Splice Index as a prognostic biomarker of strength and function in myotonic dystrophy type 1,J Clin. Invest. 2025

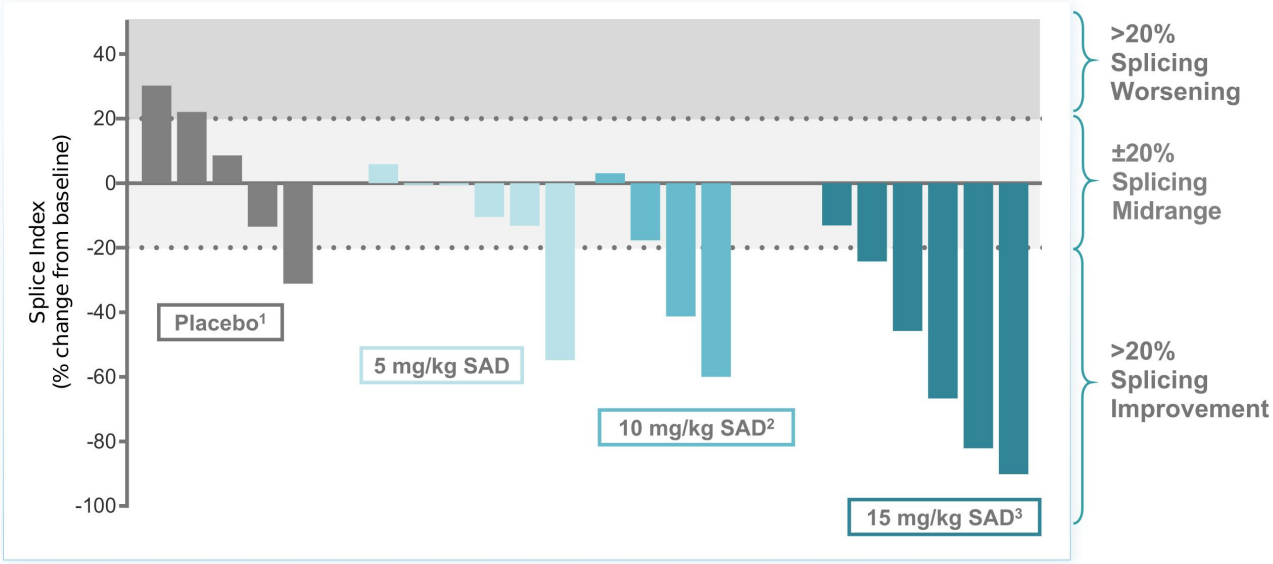
~11% of Untreated DM1 Patients Demonstrate >20% Splicing Improvement over a 2 to 3 Month Time Period

Natural History Data in Untreated DM1 Patients*



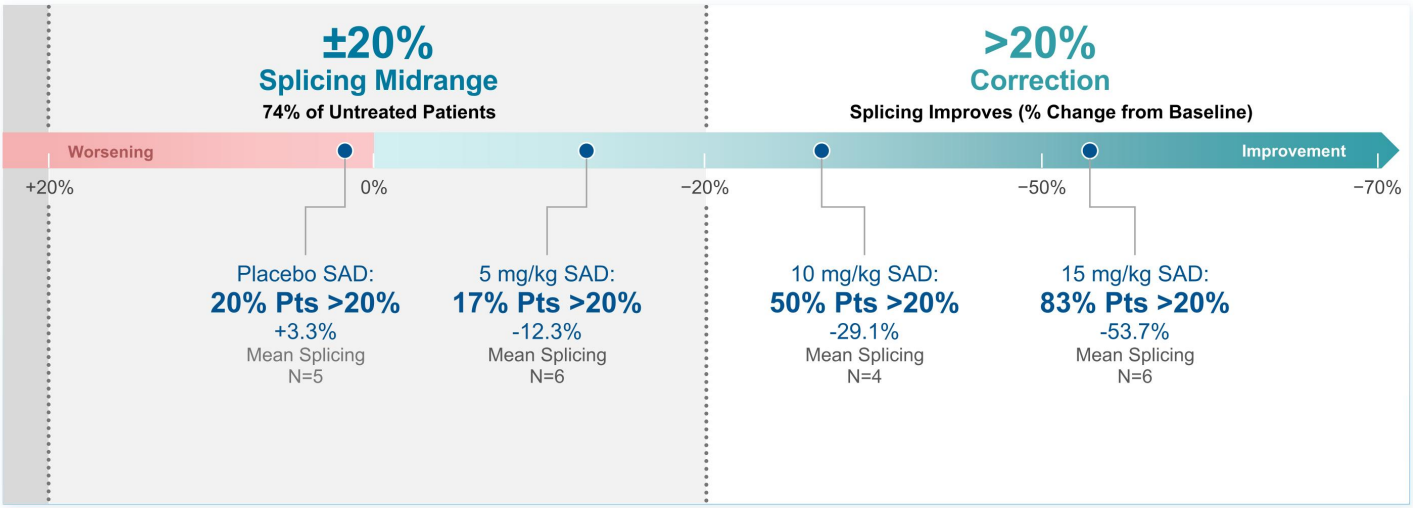
*Data from C Thornton et al., Lancet Neurology 2023; 22: 218–28. Supplement

Higher PGN-EDODM1 Doses Associated with Increased Number of Patients Achieving >20% Splicing Improvement[4]



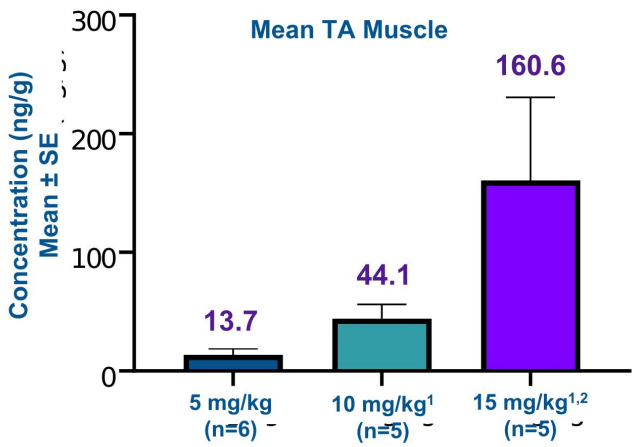
1.Missing samples due to unavailability of biopsy tissue or sample outside of assay window
2.One subject at 10 mg/kg biopsy was not collected at day 28 due to pseudoaneurysm in connection with biopsy and one participant's splicing index fell below the pre-specified assay range at baseline and at day 28 (indicating no detectable mis-splicing)
3.One subject at 15mg/kg received 77% of the dose and was still included in the splicing index change analysis for the cohort
4. Day 28 analysis from FREEDOM-DM1 clinical study

PGN-EDODM1 Demonstrated >20% Splicing Correction in a Majority of DM1 Patients after a Single Dose ≥10 mg/kg



Robust, Greater Than Dose-Proportional Increase in Muscle Tissue Concentration Following Single Dose

Muscle Tissue Concentration at D28



1.Missing samples due to unavailability of biopsy tissue
2.One subject at 15mg/kg received 77% of the dose and was still included in the muscle tissue concentration analysis for the cohort

PGN-EDODM1 Was Generally Well Tolerated, with TEAEs Primarily Mild to Moderate Across Dose Cohorts

	Placebo (n=6) N (events)	Cohort 1 5 mg/kg (n=6)	Cohort 2 10 mg/kg (n=6)	Cohort 3 15 mg/kg (n=6)	Total (n=24)
Any TEAE, n (events)	5 (16)	3 (20)	4 (16)	5 (18)	17 (70)
Any TEAE by Max Severity Mild/Moderate Severe	 5 0	 2 1	 2 2	 5 0	 14 3
Any related TEAE, n (events)	1 (3)	1 (1)	2 (4)	4 (14)	8 (22)
Any SAE (event)	1(2)	1 (1)	2 (2)	0 (0)	4 (5)
Any related SAE	0	0	1 (1)	0	1(1)
Any TEAE leading to study withdrawal	0	0	0	0	0
Any TEAE leading to death	0	0	0	0	0

- Most frequent TEAEs: nausea, nasopharyngitis, and headache
- No electrolyte-related TEAEs or hypomagnesemia observed across dose cohorts
- No renal-related TEAEs observed at 5 and 10 mg/kg; DLT at 15 mg/kg involving a transient decrease in eGFR(cys), resolving without intervention
- Transient moderate albuminuria observed at 15 mg/kg and mild albuminuria at 10 mg/kg; Normalized within 2-7 days without intervention
- One drug-related hypersensitivity reaction (rash) during infusion at 15 mg/kg, resolving within 2 hours with oral antihistamines
- One drug-related SAE of severe abdominal pain at 10 mg/kg, confounded by off-label medication use on the day of dosing

*As of database lock on December 23, 2025. Unblinded FREEDOM safety data
TEAE: treatment-emergent adverse event, SAE: serious adverse event, DLT: Dose limiting toxicity, eGFR(cys): estimated glomerular filtration rate (cystatin equation)

PGN-EDODM1 –
FREEDOM2 MAD Trial in DM1

FREEDOM2: Phase 2 MAD Study Design

Freedom 2
DM1

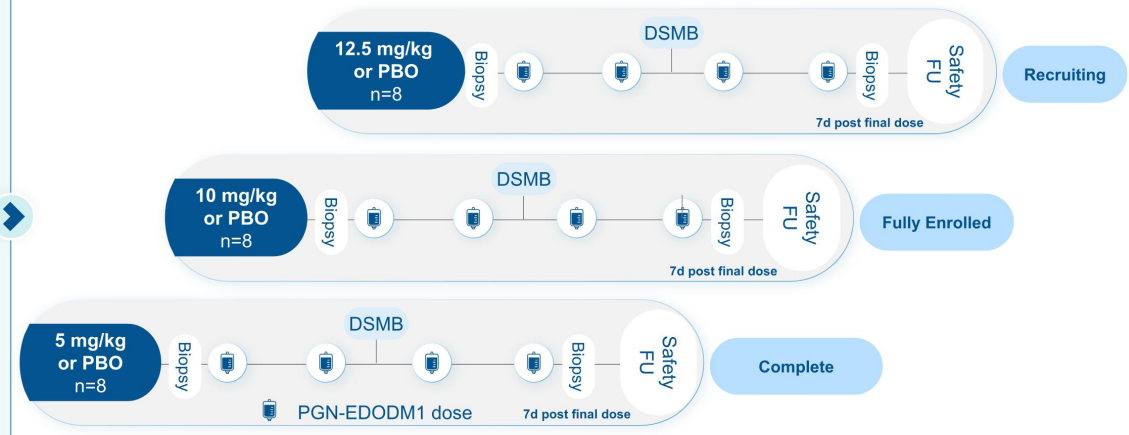
Multinational, randomized, double-blind, placebo-controlled, MAD study open in Canada, UK, NZ, Australia and South Korea*

IV administration of PGN-EDODM1 or placebo every 4 weeks for a period of 12 weeks

Key endpoints: Safety, PK, correction of splicing, functional assessments: vHOT, hand grip,10MWT

FREEDOM-OLE open for patients in FREEDOM & FREEDOM2

4 Doses of PGN-EDODM1 or Placebo (randomized 3:1)



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DSMB: data safety monitoring board; FU: follow-up; IV: intravenous; MAD: multiple-ascending dose; PBO: placebo; PK: pharmacokinetics; vHOT: video hand opening test; OLE: open label extension; 10MWT: 10-meter walk run test
*The U.S. FDA placed a partial clinical hold on FREEDOM2-DM1

Favorable Emerging Safety Profile of PGN-EDODM1; No Increase in Toxicity with Multiple Doses at 5 mg/kg

Summary of Treatment Emergent Adverse Events (TEAEs)[1]	5 mg/kg (n=8) n(%)
Any TEAE	7 (87.5)
Mild	4 (50.0)
Moderate	3 (37.5)
Severe	0 (0.0)
Any SAE	0
Any related SAE	0
Any AESI or dose-limiting toxicities	0
Any TEAE leading to study withdrawal	0
Any TEAE leading to death	0

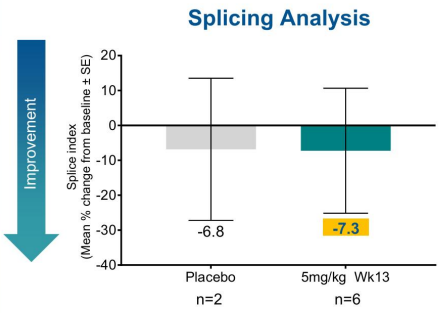
PGN-EDODM1 was Generally Well-Tolerated, with All AEs Mild or Moderate in Severity[1]

- All participants completed all 4 doses, with no evidence of cumulative AEs
- The overall AE profile of MAD 5 mg/kg is consistent with that observed in SAD 5 mg/kg
- Nausea was the most common AE
- No SAEs, AESIs, or DLTs and no signs of hypersensitivity
- eGFR and creatinine measurements within the normal range
- No hypomagnesemia
- Transient albuminuria observed – did not increase with repeat dosing

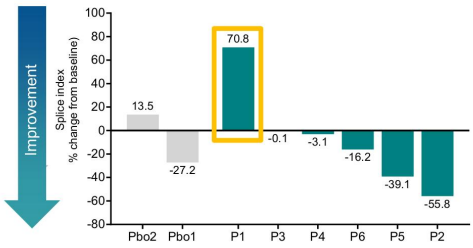
1. Data cutoff date: 04 March 2026
AE: Adverse event; AESI: Adverse event of special interest; DLT: Dose limiting toxicities; SAE: Serious adverse event; TEAE: Treatment emergent adverse event; eGFR: estimated Glomerular Filtration Rate

FREEDOM2 5 mg/kg Splicing Correction

5 mg/kg Collective Splicing Data



5 mg/kg Individual Splicing Data



Excluding notable splicing outlier mean splicing correction of 22.9% (n=5)

High mean muscle tissue concentration of PGN-EDODM1 of 158 ng/g at Day 7 post-dose (n=5)*

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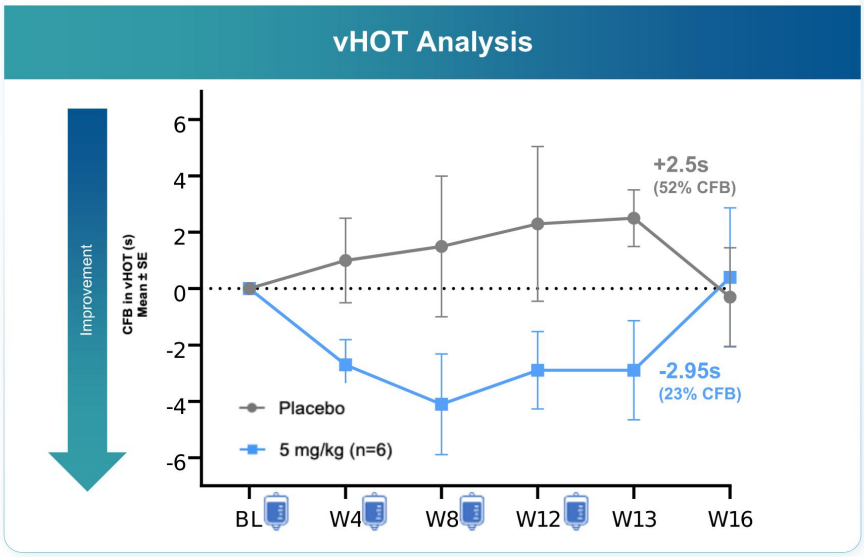
Data cutoff date: 04 March 2026
*One patient's muscle tissue concentration reading was pending at cutoff date.

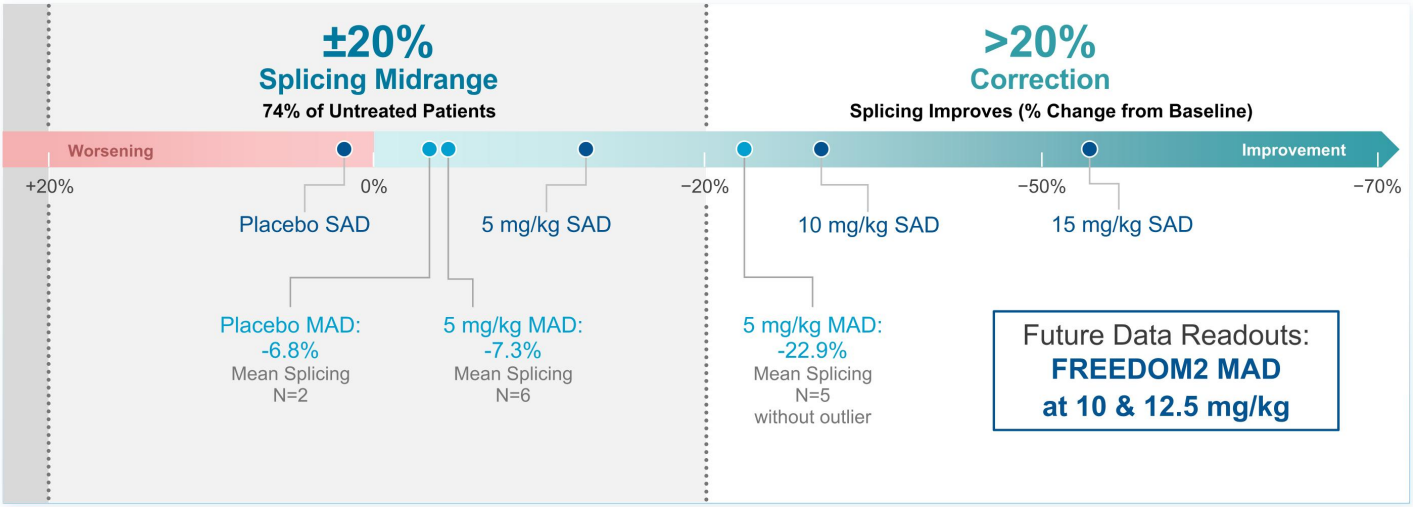
FREEDOM2 5 mg/kg Myotonia (vHOT): PGN-EDODM1 Shows Promising Middle Finger vHOT Trends at Lowest Dose



- Excluding notable splicing outlier, the active group remained below baseline (n=5)
- Splicing outlier demonstrated 22 sec difference between nadir and week 16

CFB: Change from baseline; SE: Standard error
Data cutoff date: 04 March 2026

FREEDOM2 MAD at 10 & 12.5 mg/kg has Potential to Build Upon Robust Single-Dose Splicing Correction



Promising Safety, Splicing and vHOT Data in FREEDOM2 Lowest Dose – Supports Ongoing 10 mg/kg MAD Cohort

SAFETY & TOLERABILITY	• PGN-EDODM1 was generally well-tolerated; all AEs were mild or moderate in severity, with no SAEs or cumulative toxicity with repeat dosing observed
SPLICING & FUNCTIONAL DATA:	• Mean splicing correction of 7.3% with PGN-EDODM1 (n=6) vs 6.8% placebo (n=2) • Analysis excluding one notable splicing outlier demonstrated mean splicing correction of 22.9% (n=5) • Promising trends observed in vHOT in PGN-EDODM1 treated group

Company on track to report clinical data from 10 mg/kg multiple dose cohort in November

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Data cutoff date: 04 March 2026
AE: Adverse event; SAE: Serious adverse event

Summary of PGN-EDODM1 and FREEDOM Program

1. **Differentiated Delivery Technology**
2. **Differentiated Target**

FREEDOM STUDY:

PRIMARY: SAFETY

- ☑ Favorable emerging safety profile

EXPLORATORY: PD (SPLICING)

- ☑ Unprecedented splicing correction achieved with single dose

PHASE 2 FREEDOM2 MAD & OLE

Promising Safety, Splicing and vHOT Data in FREEDOM2 Lowest Dose – Supports Ongoing 10 mg/kg MAD Cohort

- **Completed enrollment** in the 10 mg/kg MAD cohort of FREEDOM2, with 7 of 8 patients having completed dosing
- **16 patients** have enrolled in the FREEDOM-**OLE** at 5 mg/kg, including 6 patients from FREEDOM2; OLE now dosing at 10 mg/kg

GUIDANCE:

- **November:** FREEDOM2 10 mg/kg clinical results
- **Early January:** Update from the open-label extension
- **1H 2027:** FREEDOM2 12.5 mg/kg clinical results
- EOP2 meeting with regulators anticipated pending results of the 10 mg/kg and 12.5 mg/kg cohort to discuss the registrational program

Strong cash runway into the fourth quarter of 2027

PepGen™

Thank you

PepGen to Advance PGN-EDODM1 into Highest Dose Cohort in Phase 2 FREEDOM2-DM1 Study Following DSMB Review

– DSMB also recommended dose escalation in FREEDOM-OLE from 5 mg/kg to 10 mg/kg –

BOSTON—August 6, 2026-- PepGen Inc. (Nasdaq: PEPG), a clinical-stage biotechnology company advancing the next generation of oligonucleotide therapies with the goal of transforming the treatment of severe neuromuscular and neurological diseases, today announced that an independent Data and Safety Monitoring Board (DSMB) has recommended advancing the ongoing Phase 2 FREEDOM2-DM1 study evaluating PGN-EDODM1 in participants with myotonic dystrophy type 1 (DM1) into the third and highest multiple ascending dose (MAD) cohort of 12.5 mg/kg, with no recommended changes to the study protocol. The DSMB also recommended dose escalation in the open-label extension (OLE) study from 5 mg/kg to 10 mg/kg. Notably, 6 of 8 participants from the 5 mg/kg FREEDOM2 cohort have elected to enroll in the OLE, bringing total OLE enrollment to 16 participants. The recommendation followed a review of available safety data from the fully enrolled 10 mg/kg MAD cohort and the OLE study.

PGN-EDODM1 remains generally well-tolerated, with no serious adverse events or dose-limiting toxicities reported in FREEDOM2 or the OLE to date. Repeat dosing at both the 5 mg/kg and 10 mg/kg dose levels shows no evidence of cumulative toxicity, and no treatment discontinuations were reported in FREEDOM2 or the OLE.

“The DSMB's recommendation to advance FREEDOM2 into the highest planned dose level in the study and escalate dosing in the OLE supports the encouraging safety profile of PGN-EDODM1 following multiple months of treatment,” said James McArthur, PhD, President and Chief Executive Officer of PepGen. “In the FREEDOM2 study, 7 of 8 participants in the 10 mg/kg cohort have now completed dosing. We look forward to reporting additional safety, splicing and functional data from FREEDOM2 as we continue to evaluate the potential of PGN-EDODM1 to address the root cause of disease across multiple organ systems.”

The Company expects to report results from the fully enrolled 10 mg/kg FREEDOM2 cohort in November. Results from the 12.5 mg/kg cohort are expected in the first half of 2027, at which time PepGen plans to engage with regulators in an end of Phase 2 meeting to discuss plans for the registrational program. The Company also expects to provide an update from the OLE study by early January.

About PGN-EDODM1

PGN-EDODM1, PepGen's investigational candidate in development for the treatment of DM1, utilizes the Company's proprietary EDO technology to deliver a therapeutic oligonucleotide that is designed to restore the normal splicing function of MBNL1, a key RNA splicing protein. PGN-EDODM1 addresses the deleterious effects of cytosine-uracil-guanine (CUG) repeat expansion in the dystrophia myotonica protein kinase (*DMPK)* transcripts which sequester MBNL1, by binding to the pathogenic CUG trinucleotide repeat expansion present in the *DMPK* transcripts and disrupting the binding between the CUG repeat expansion and MBNL1. PepGen believes this innovative therapeutic approach may have considerable advantages over oligonucleotide modalities that rely on knockdown or degradation of the *DMPK* transcripts as it will allow the DMPK transcripts to continue to perform their normal function within the cell, while also liberating MBNL1 to correct downstream mis-splicing events. The U.S. Food and Drug Administration has granted PGN-EDODM1 both Orphan Drug and Fast Track Designations for the treatment of patients with DM1. The European Medicines Agency (EMA) has recently granted Orphan Designation for PGN-EDODM1.

About PepGen

PepGen Inc. is a clinical-stage biotechnology company developing the next generation of oligonucleotide therapies with the goal of transforming the treatment of severe neuromuscular and neurological diseases. PepGen’s Enhanced Delivery Oligonucleotide (EDO) platform is founded on over a decade of research and development and leverages cell-penetrating peptides to improve the uptake and activity of conjugated oligonucleotide therapeutics. Using these EDO peptides, the Company is generating a pipeline of oligonucleotide therapeutic candidates designed to target the root cause of serious diseases.

For more information, please visit *PepGen.com*. Follow PepGen on *LinkedIn* and *X*.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. These statements may be identified by words such as “aims,” “anticipates,” “believes,” “could,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “plans,” “possible,” “potential,” “seeks,” “will,” and variations of these words or similar expressions that are intended to identify forward-looking statements. Any such statements in this press release that are not statements of historical fact may be deemed to be forward-looking statements. These forward-looking statements include, without limitation, statements regarding the therapeutic potential and tolerability of PGN-EDODM1, timelines for future data reports from our FREEDOM2-DM1 trial and its open-label extension, and plans to engage with regulators.

Any forward-looking statements in this press release are based on current expectations, estimates and projections only as of the date of this release and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to risks related to: delays or failure to successfully initiate or complete our ongoing and planned development activities for PGN-EDODM1; our ability to enroll patients in our clinical trials, including FREEDOM2; that our interpretation of clinical and preclinical study results may be incorrect, or that we may not observe the levels of therapeutic activity in clinical testing that we anticipate based on prior clinical or preclinical results for PGN-EDODM1; that PGN-EDODM1 may not be safe and effective or otherwise demonstrate safety and efficacy in our clinical trials; adverse outcomes from our regulatory interactions, including delays in regulatory review, clearance to proceed or approval by regulatory authorities with respect to our programs, including release of the partial clinical hold or clearance to commence planned clinical studies of our product candidates, or other regulatory feedback requiring modifications to our development programs, including in each case with respect to our PGN-EDODM1 program; changes in regulatory framework that are out of our control; unexpected increases in the expenses associated with our development activities or other events that adversely impact our financial resources and cash runway; and our dependence on third parties for some or all aspects of our product manufacturing, research and preclinical and clinical testing. Additional risks concerning PepGen's programs and operations are described in our most recent reports filed with the SEC. PepGen explicitly disclaims any obligation to update any forward-looking statements except to the extent required by law.

This release discusses PGN-EDODM1, an investigational therapy that has not been approved for use in any country and is not intended to convey conclusions about its efficacy or safety. There is no guarantee that PGN-EDODM1 or any other investigational therapy will successfully complete clinical development or gain regulatory authority approval.

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