

**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): December 4, 2023

89bio, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-39122
(Commission
File Number)

36-4946844
(IRS Employer
Identification No.)

**142 Sansome Street, Second Floor
San Francisco, CA 94104**
(Address of principal executive offices, including zip code)

(415) 432-9270
(Registrant's telephone number, including area code)

Not Applicable
(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 \$0.001 per share	ETNB	The 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 8.01 Other Events.

On December 4, 2023, the Company made available an updated corporate presentation on the Company's website. A copy of the corporate presentation is filed herewith as Exhibit 99.1 and incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits

(d) *Exhibits.*

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
99.1	Corporate Presentation, dated December 2023
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.

89bio, Inc.

Date: December 6, 2023

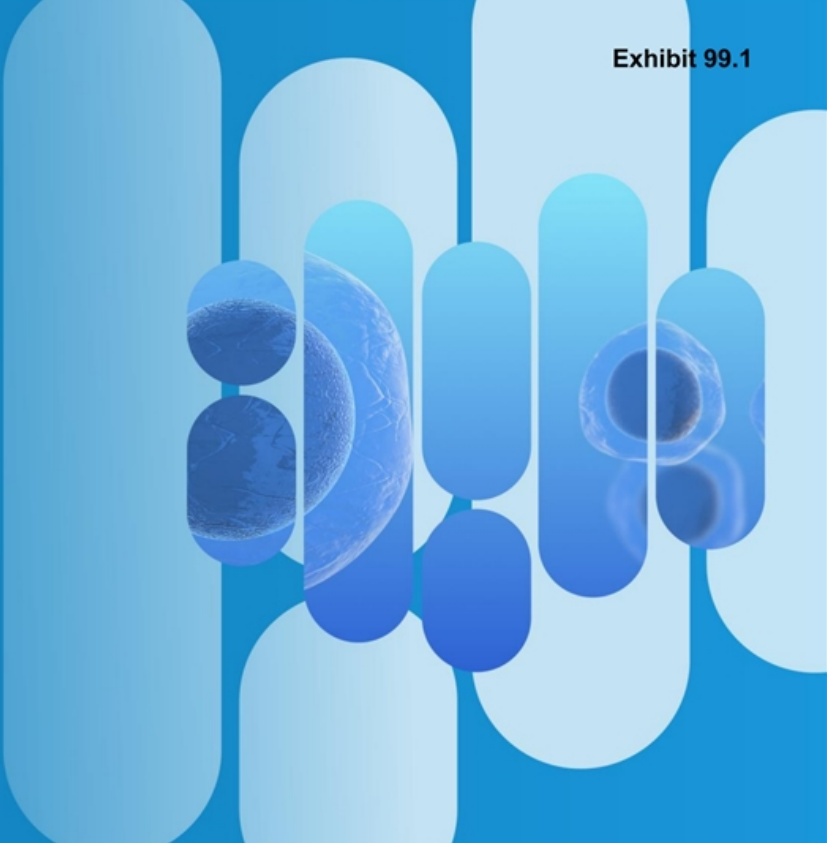
By: /s/ Rohan Palekar
Rohan Palekar
Chief Executive Officer

89bio

Powerful Science
Meaningful Medicines
Changing Lives

Nasdaq: ETNB

December 2023



Disclaimers



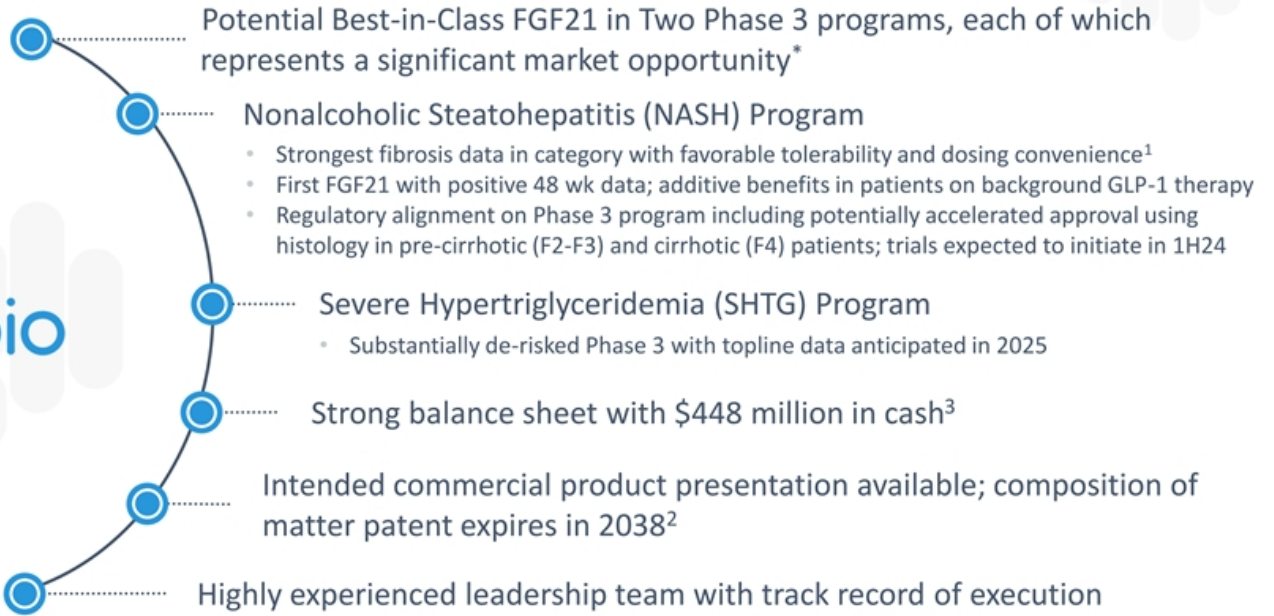
This presentation contains “forward-looking statements” within the meaning of the federal securities laws, which statements are subject to substantial risks and uncertainties and are based on estimates and assumptions. Other than statements of historical facts, all statements included in this presentation are forward-looking statements, including statements concerning our plans, objectives, goals, strategies, future events, plans or intentions relating to product candidates, potential market opportunities, estimates of market size, estimates of market growth, the potential clinical benefit, complementary benefits to other therapies, effect on histology and safety and tolerability profile of pegozafermin (formerly BIO89-100), the clinical potential of pegozafermin, potential indications for pegozafermin, the association of clinical data with potential clinical benefit in other indications, the anticipated timing, design, endpoints, and conduct of our future and ongoing clinical trials for pegozafermin, the timing of anticipated milestones, the timing of regulatory meetings, the timing and likelihood of success, plans and objectives of management for future operations and future results of anticipated product development efforts and our liquidity and capital resources, including our cash position. In some cases, you can identify forward-looking statements by terms such as “may,” “might,” “will,” “objective,” “intend,” “should,” “could,” “can,” “would,” “expect,” “believe,” “design,” “estimate,” “predict,” “potential,” “plan” or the negative of these terms, and similar expressions intended to identify forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that could cause our actual results to differ materially from the forward-looking statements expressed or implied in this presentation including those described more fully our most recent Form 10-K and Form 10-Q under the caption “Risk Factors” and elsewhere in such report and in other subsequent disclosure documents filed with the SEC.

We cannot assure you that we will realize the results, benefits or developments that we expect or anticipate or, even if substantially realized, that they will result in the consequences or affect us or our business in the way expected. Forward-looking statements are not historical facts, and reflect our current views with respect to future events. Given the significant uncertainties, you should evaluate all forward-looking statements made in this presentation in the context of these risks and uncertainties and not place undue reliance on these forward-looking statements as predictions of future events. All forward-looking statements in this presentation apply only as of the date made and are expressly qualified in their entirety by the cautionary statements included in this presentation. We disclaim any intent to publicly update or revise any forward-looking statements to reflect subsequent events or circumstances, except as required by law.

We obtained the industry, market and competitive position data used throughout this presentation from our own internal estimates and research, as well as from industry and general publications, and research, surveys and studies conducted by third parties. Internal estimates are derived from publicly available information released by industry analysts and third-party sources, our internal research and our industry experience, and are based on assumptions made by us based on such data and our knowledge of the industry and market, which we believe to be reasonable. In addition, while we believe the industry, market and competitive position data included in this presentation is reliable and based on reasonable assumptions, we have not independently verified any third-party information, and all such data involve risks and uncertainties and are subject to change based on various factors. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates.

This presentation discusses product candidates that are under preclinical or clinical evaluation and that have not yet been approved for marketing by the U.S. Food and Drug Administration or any other regulatory authority. Until finalized in a clinical study report, clinical trial data presented herein remain subject to adjustment as a result of clinical site audits and other review processes. No representation is made as to the safety or effectiveness of these product candidates for the use for which such product candidates are being studied.

Corporate Highlights



¹ Efficacy comparison based on relative risk ratios and not based on head-to-head results

² Patent expiration date excludes any patent term extension or new patents

³ Cash, cash equivalents and short-term investments as of September 30, 2023; excludes in-the-money warrants of approximately \$50 million that expire on June 30, 2024

* If approved

Advancing Pegzofermin in Clinical Development




INDICATION	TRIAL	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3
NASH <i>Breakthrough Therapy designation</i>		Phase 3 trial in F2/F3: Histology & Outcomes – 1Q24			
		Phase 3 trial in F4: Histology & Outcomes – 2Q24			
SHTG		Phase 3 trial – Ongoing			

Pegozafermin Data Published in Prestigious Journals



ENliven

 **The NEW ENGLAND JOURNAL of MEDICINE**

ORIGINAL ARTICLE

Randomized, Controlled Trial of the FGF21 Analogue Pegozafermin in NASH

Rohit Loomba, M.D., M.H.Sc., Arun J. Sanyal, M.D., Kris V. Kowdley, M.D., Deepak L. Bhatt, M.D., M.P.H., Naim Alkhoury, M.D., Juan P. Frias, M.D., Pierre Bedossa, M.D., Ph.D., Stephen A. Harrison, M.D., Donald Lazas, M.D., Robert Barish, M.D., Mildred D. Gottwald, Pharm.D., Shibao Feng, Ph.D., Germaine D. Agollah, Ph.D., Cynthia L. Hartsfield, Ph.D., Hank Mansbach, M.D., Maya Margalit, M.D., and Manal F. Abdelmalek, M.D., M.P.H.

ENtrigue

nature medicine

nature medicine 

Article <https://doi.org/10.1038/s41591-023-02427-z>

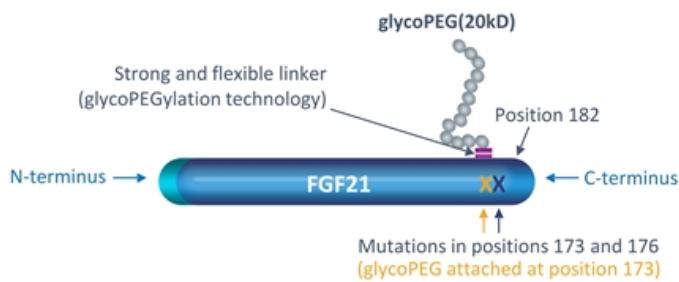
The FGF21 analog pegozafermin in severe hypertriglyceridemia: a randomized phase 2 trial

Received: 29 January 2023 Deepak L. Bhatt¹, Harold E. Bays², Michael Miller³, James E. Cain III⁴, Katarzyna Wasilewska⁵, Nabil S. Andrawis⁶, Teresa Parisi⁷, Shibao Feng⁸, Lulu Sterling⁹, Leo Tsang⁹, Cynthia L. Hartsfield⁹, Germaine D. Agollah⁹, Hank Mansbach⁹, John J. P. Kastelein⁹ & ENTRIGUE Principal Investigators*

Accepted: 30 May 2023
Published online: 24 June 2023

 Check for updates

Pegozafermin is an FGF21 Analog Optimally Engineered to Balance Efficacy and Long Dosing Interval



RECEPTOR	FGF21	Pegozafermin
	EC ₅₀ (nM) Mean ± S.D.	EC ₅₀ (nM) Mean ± S.D.
KLB	nd	nd
KLB/FGFR1	4.5 ± 1.0	0.3 ± 0.07
KLB/FGFR2	4.5 ± 0.9	1.1 ± 0.4
KLB/FGFR3	1.8 ± 0.3	1.2 ± 0.4
KLB/FGFR4	nd	nd

nd – not determined; rhFGF19 EC₅₀ at FGFR4 = 1.7 ± 0.4

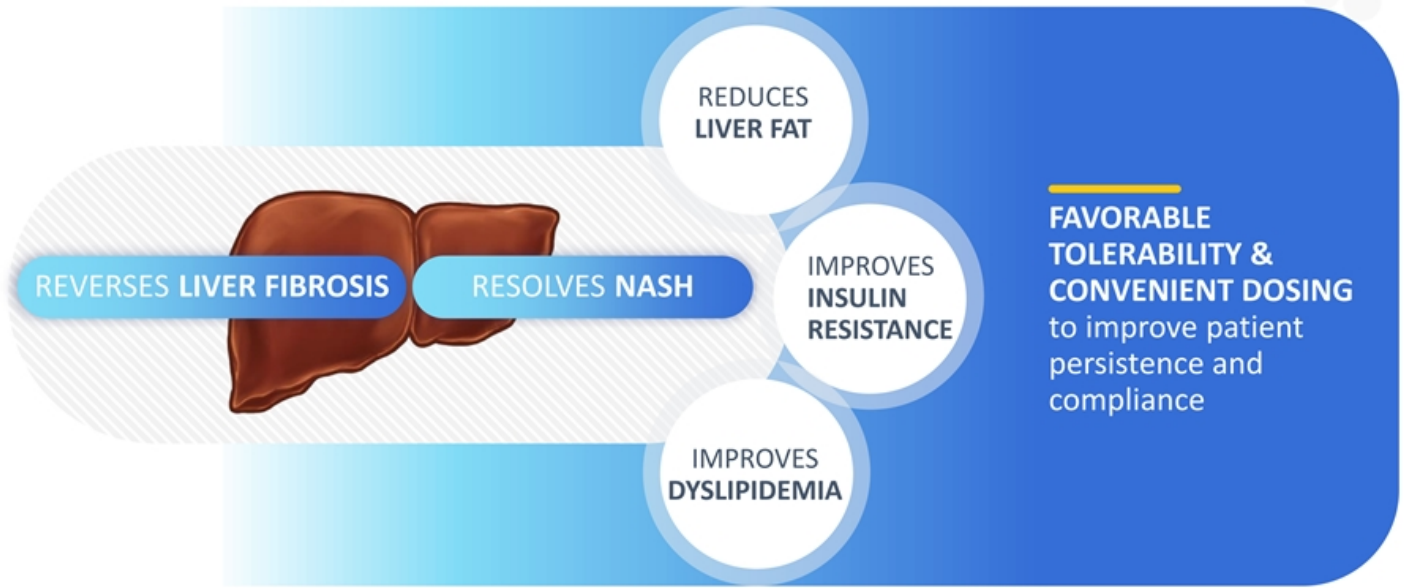
- Proprietary glycoPEGylation technology commercially validated with approved products
- Increases half-life of native FGF21 (<2 hours) to 55-100 hours based on single ascending dose study
- Low nanomolar potency against FGF receptors 1c, 2c, 3c, similar to native FGF21
- Composition of Matter patent expiring in 2038

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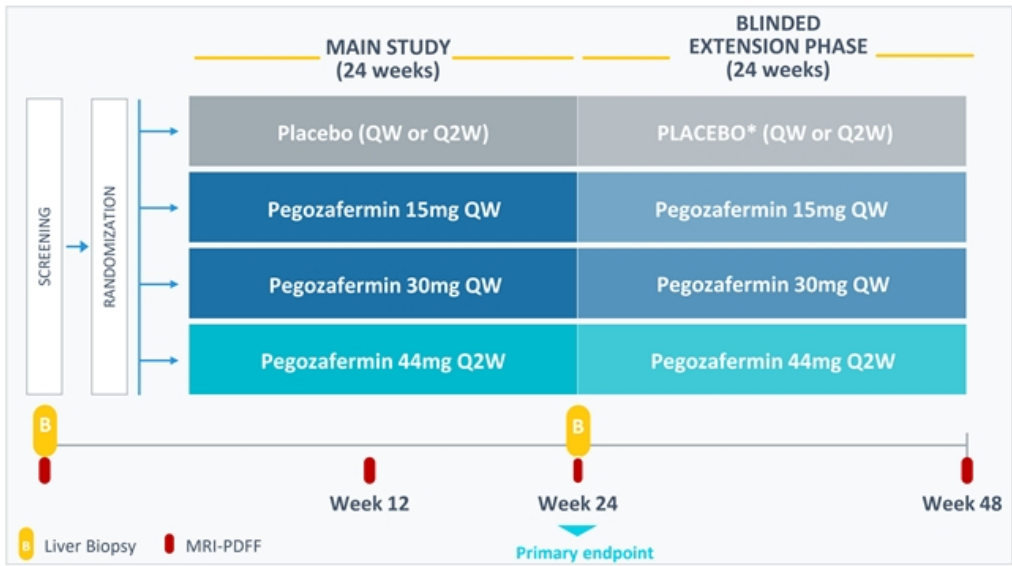
Opportunity in NASH



Pegozafermin Offers Potential Best-in-Class Therapeutic for NASH*



ENLIVEN Trial Evaluated Weekly (QW) and Every-Two-Week (Q2W) Dosing in Patients with NASH F2-F3



PRIMARY ENDPOINTS

- ≥ 1 -stage fibrosis improvement with no worsening of NASH¹
- NASH resolution with no worsening of fibrosis²

KEY SECONDARY EFFICACY ENDPOINTS

- ≥ 2 -point change in NAS with no worsening of fibrosis
- Non-invasive liver markers (liver fat, liver injury, fibrosis markers)

¹Improvement in liver fibrosis by ≥ 1 stage and no worsening of steatohepatitis defined as no increase in NAS for ballooning, inflammation, or steatosis (FDA draft guidance).

²Resolution of steatohepatitis is defined as absent fatty liver disease or isolated or simple steatosis without steatohepatitis and a NAS score of 0-1 for inflammation, 0 for ballooning and any value for steatosis (FDA draft guidance).

*Some placebo patients were re-randomized in the extension phase to receive pegzofermin.

NAS, NAFLD Activity Score; MRI-PDFF, Magnetic resonance imaging-estimated proton density fat fraction; QW: Every week; Q2W: Every 2 weeks

Baseline Characteristics Well Balanced Across Dose Groups



Parameter Mean or %	Placebo (n=71)	15mg QW (n=21)	30mg QW (n=73)	44mg Q2W (n=57)	Total (n=222)
Age (years)	56	55	55	55	56
Female	55%	43%	69%	65%	61%
BMI (kg/m ²)	38	38	35	36	37
Type 2 Diabetes	69%	86%	62%	61%	66%
Fibrosis Stage (% F3)	66%	43%	64%	53%	60%
NAFLD Activity Score	5.0	4.8	5.3	5.2	5.1
Liver Fat Content (MRI-PDFF)	16.7%	15.8%	16.7%	15.8%	16.4%
Liver Stiffness (VCTE, kPa)	14.1	11.2	12.5	13.2	13.0
PRO-C3 (ng/mL)	50	62	54	52	53
ALT (U/L)	50	61	60	56	56
AST (U/L)	41	48	47	42	44
HbA1c, overall population (%)	6.6	7.0	6.6	6.7	6.7
Triglycerides (mg/dL)	170	186	175	165	172

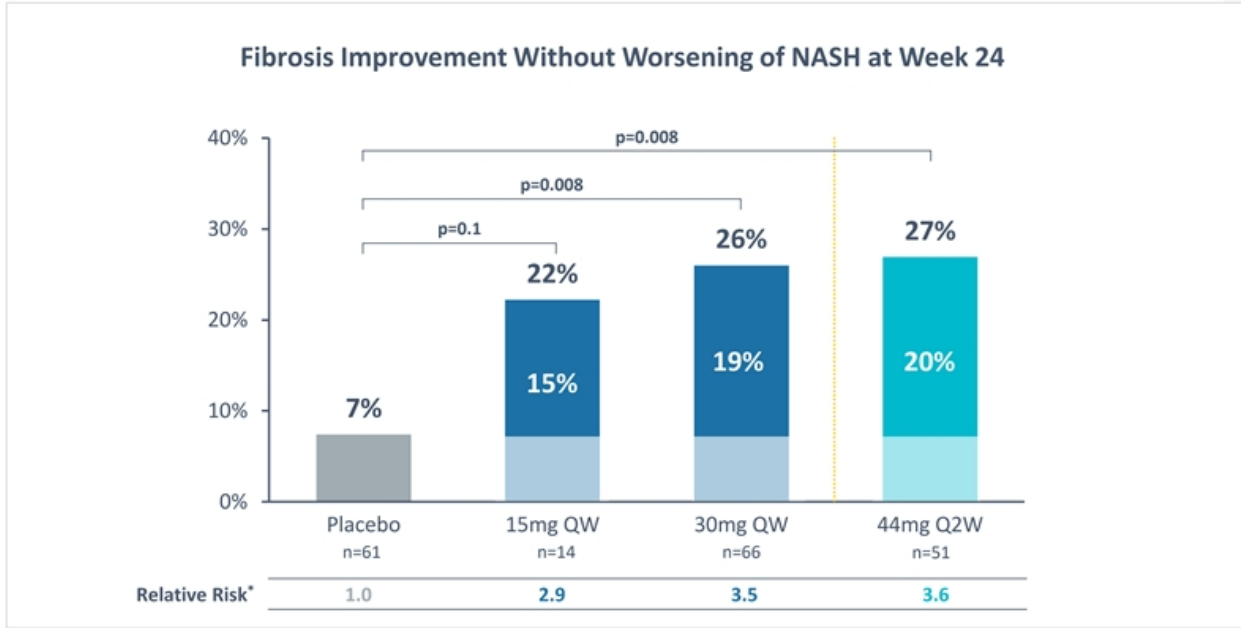
Baseline characteristics were consistent in full analysis set (n=192) and the safety set (n=222)



Source: Randomized Analysis Set.

ALT, alanine aminotransferase; AST, aspartate aminotransferase; NAFLD, nonalcoholic fatty liver disease; PRO-C3, N-terminal type III collagen propeptide; VCTE, Vibration-controlled transient elastography.

Pegozafermin Demonstrated Statistical Significance on Fibrosis Improvement at 30mg QW and 44mg Q2W Dose



*Relative risk presented is calculated by dividing the drug response by placebo response. Relative risk calculated using statistical methods show similar results. Source: Full Analysis Set; multiple imputation analysis via Cochran-Mantel-Haenszel (CMH) test stratified by type 2 diabetes mellitus (T2DM) status (yes vs. no) and fibrosis stage (F2 vs. F3).

Comparative Clinical Data in Non-Cirrhotic Patients

≥1 Stage Fibrosis Improvement with No Worsening of NASH (placebo-adjusted)



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Pegozafermin
Phase 2b | 24 weeks
Multiple Imputation¹

Intercept

Ocaliva¹
Phase 3 | 72 weeks

Madrigal
Pharmaceutical

Resmetirom²
Phase 3 | 52 weeks

inventiva

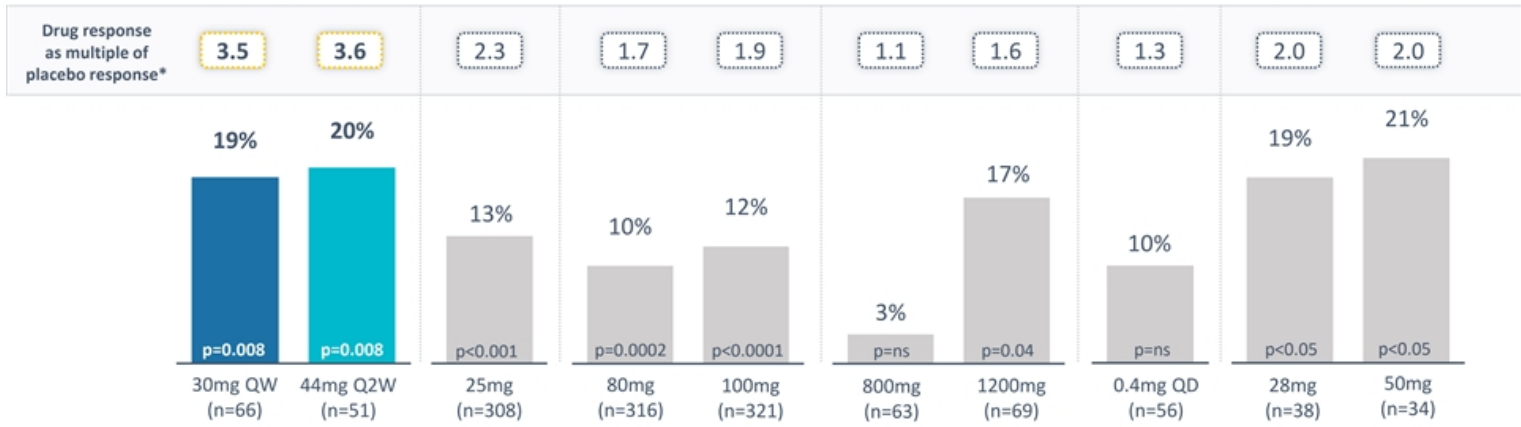
Lanifibranor
Phase 2b | 24 weeks



novo nordisk
Semaglutide
Phase 2 | 72 weeks

akero

Efruxifermin
Phase 2b | 24 weeks
Completers Analysis



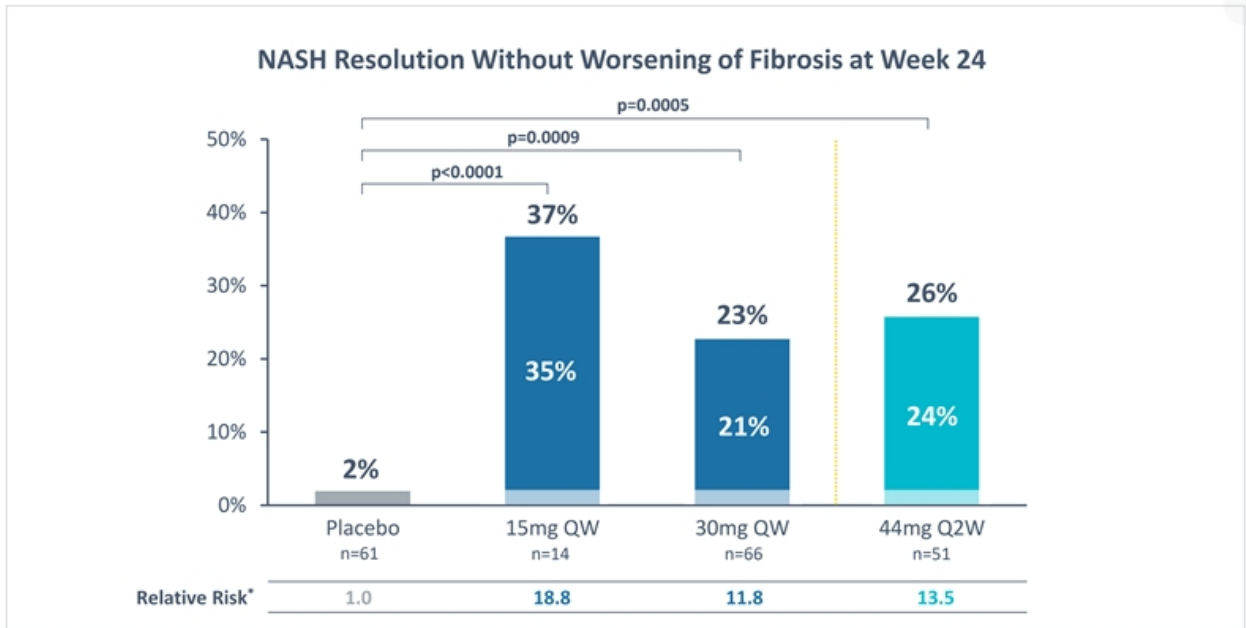
*Drug response as multiple of placebo response is calculated by dividing drug response by placebo response

¹Results same for Completer Analysis Set; ²≥1 stage fibrosis improvement with no worsening of NASH; ³Program discontinued; ns= not significant

Note: These data are derived from different clinical trials at different points in time, with differences in trial design and patient populations. As a result, cross-trial comparisons cannot be made, and no head-to-head clinical trials have been conducted.

89bio

Pegozafermin Demonstrated Statistical Significance on NASH Resolution at All Doses



* Relative risk presented is calculated by dividing the drug response by placebo response. Relative risk calculated using statistical methods show similar results. Source: Full Analysis Set; multiple imputation analysis via Cochran-Mantel-Haenszel (CMH) test stratified by TZDM status (yes vs. no) and fibrosis stage (F2 vs. F3).

Comparative Clinical Data in Non-Cirrhotic Patients

NASH Resolution with No Worsening of Fibrosis



89bio

Pegzofermin
Phase 2b | 24 weeks
Multiple Imputation¹

Intercept

Ocalivia¹
Phase 3 | 72 weeks

Madrigal

Resmetirom²
Phase 3 | 52 weeks

inventiva

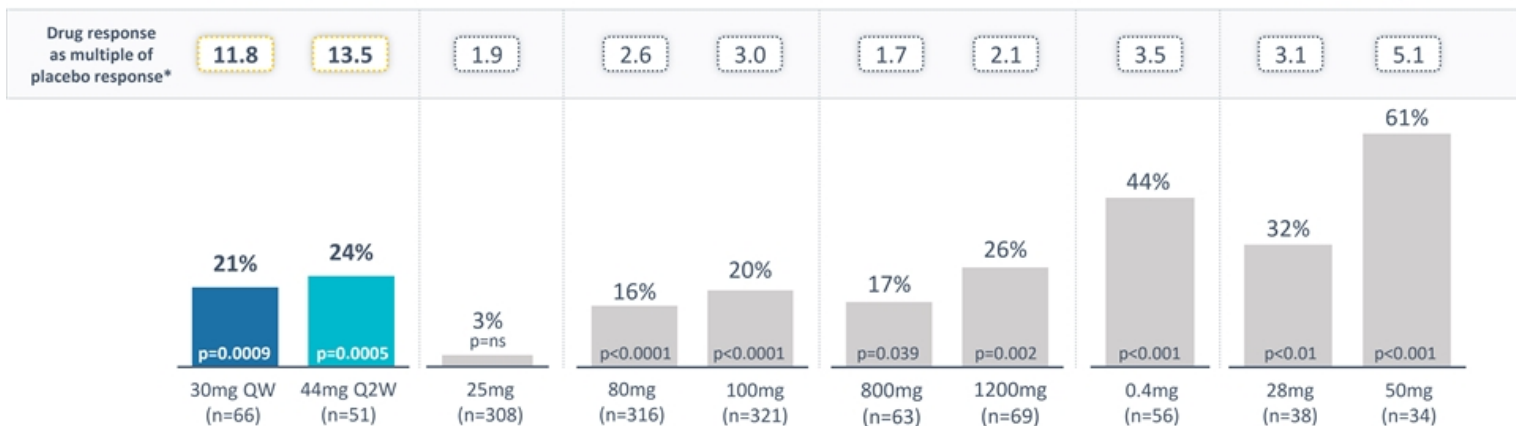
Lanifibranor
Phase 2b | 24 weeks

novo nordisk

Semaglutide
Phase 2 | 72 weeks

akero

Efruxifermin
Phase 2b | 24 weeks
Completers Analysis



* Drug response as multiple of placebo response is calculated by dividing drug response by placebo response

¹ Results same for Completer Analysis Set; ² NASH resolution with ≥2 point reduction in NAS and no worsening of fibrosis

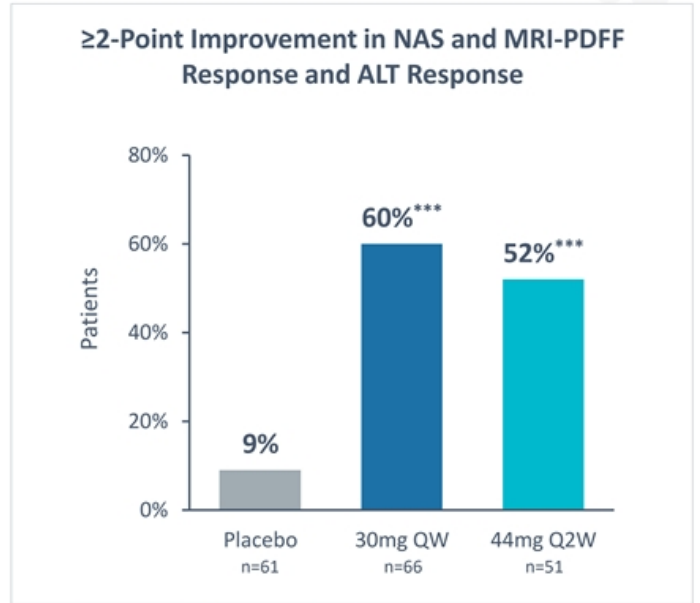
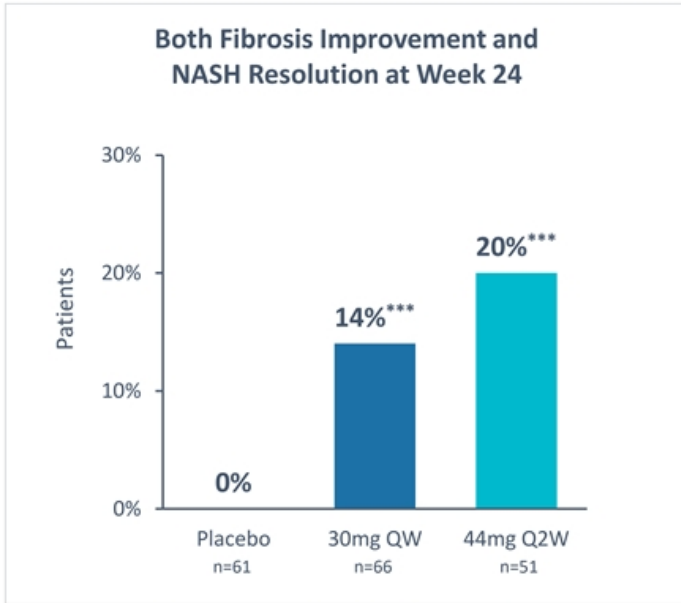
³ Program discontinued

Note: These data are derived from different clinical trials at different points in time, with differences in trial design and patient populations. As a result, cross-trial comparisons cannot be made, and no head-to-head clinical trials have been conducted.

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Pegzofermin Demonstrated Statistical Significance on the Combined Endpoint of Fibrosis Improvement and NASH Resolution

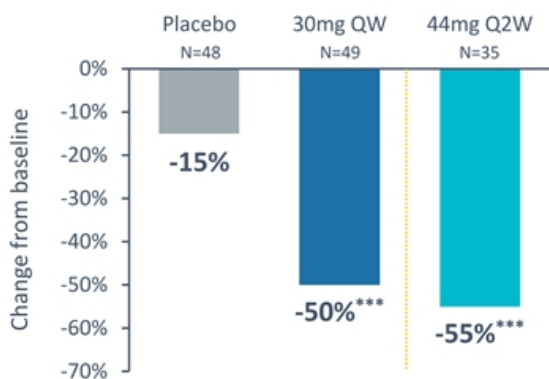
WEEK 24



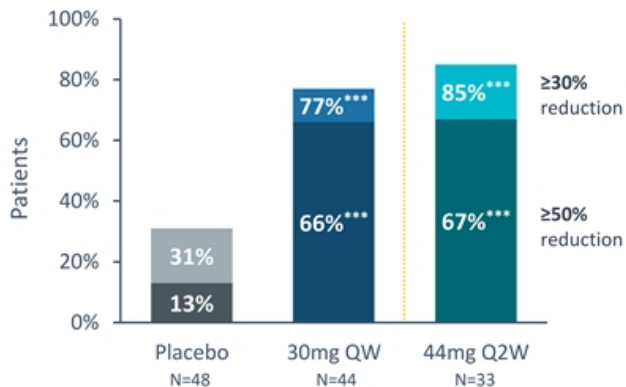
Source: Full Analysis Set; multiple imputation analysis via Cochran-Mantel-Haenszel (CMH) test stratified by T2DM status (yes vs. no) and fibrosis stage (F2 vs. F3).
MRI-PDFF responder defined as ≥30% reduction in liver fat content; ALT responder defined as ≥17U/L reduction.
***p<0.001 versus placebo.

Pegozafermin Demonstrated Robust Liver Fat Reduction with High Responder Rates by MRI-PDFF

Mean Relative Reduction in Liver Fat vs Baseline¹ at Week 24

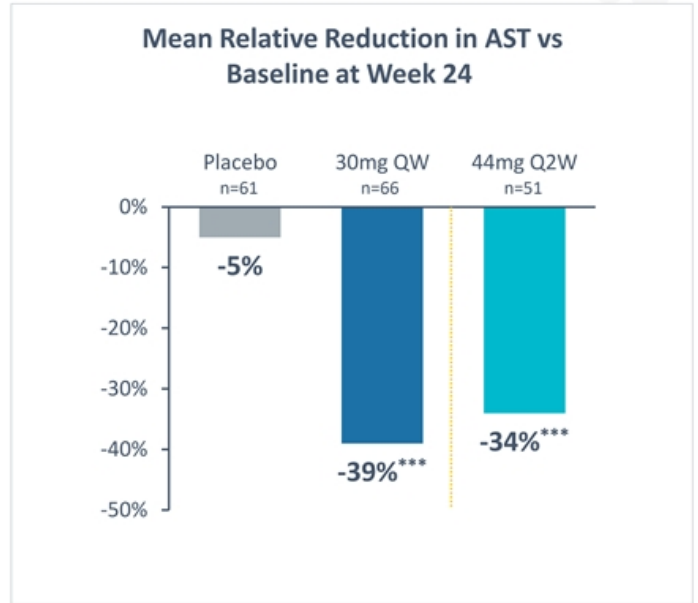
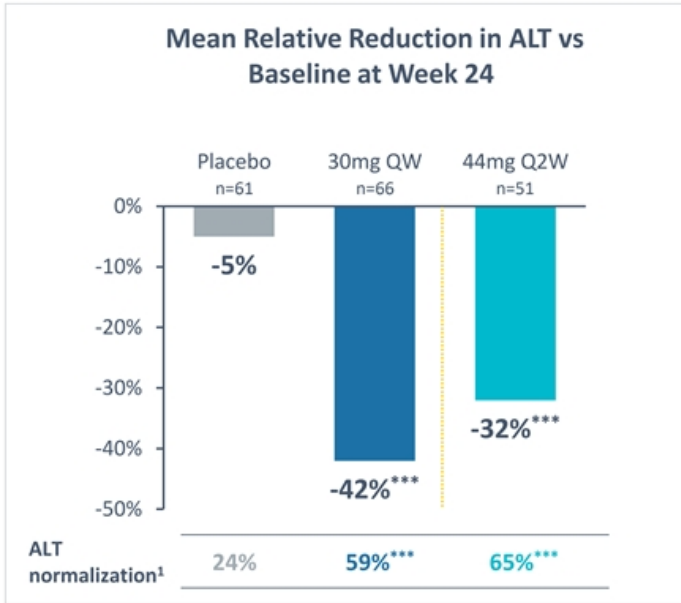


Patients Achieving $\geq 30\%$ and $\geq 50\%$ Reduction in Hepatic Fat Fraction Versus Baseline²



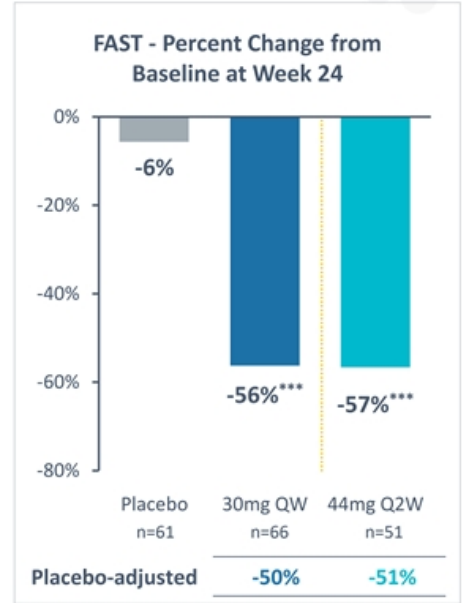
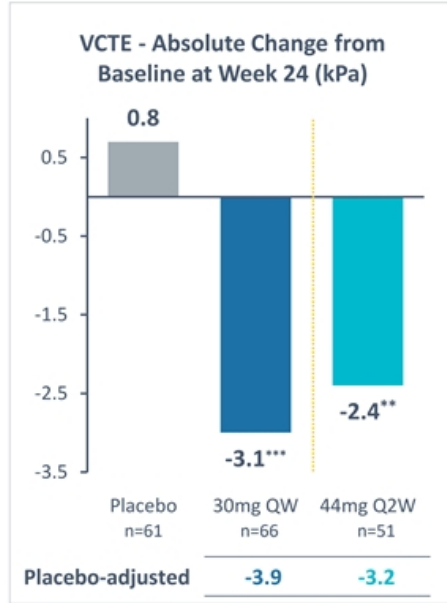
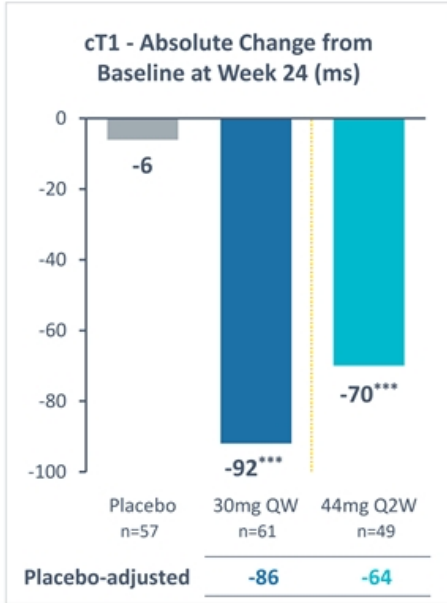
¹Analysis via mixed model repeated measure (MMRM). ²Analysis via Cochran-Mantel-Haenszel (CMH) test stratified by T2DM status (yes vs. no) and fibrosis stage (F2 vs. F3). MRI-PDFF Analysis Set in patients with >10% liver fat at baseline. ***p<0.001 versus placebo

Pegozafermin Demonstrated Significant Improvements in Markers of Liver Injury/Inflammation (ALT and AST)



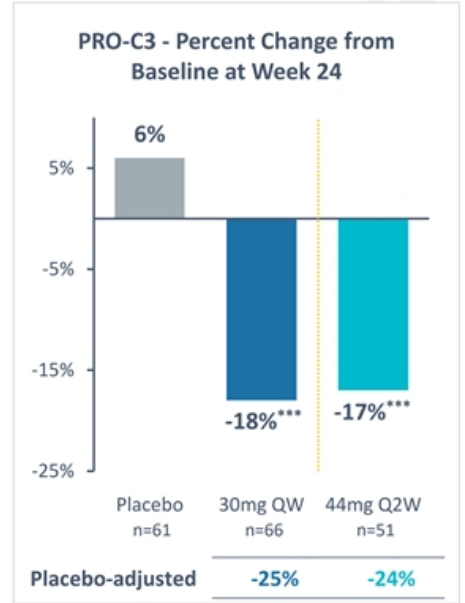
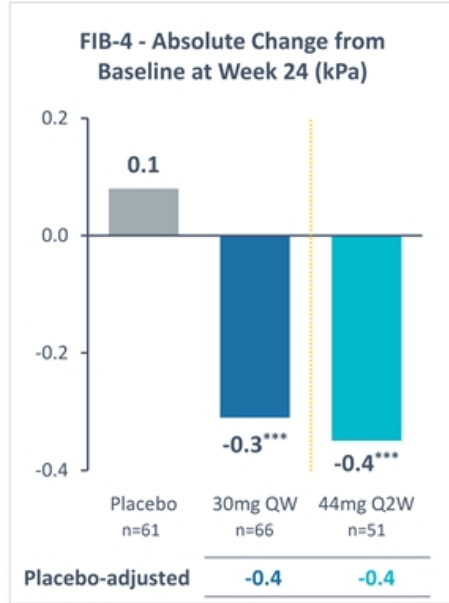
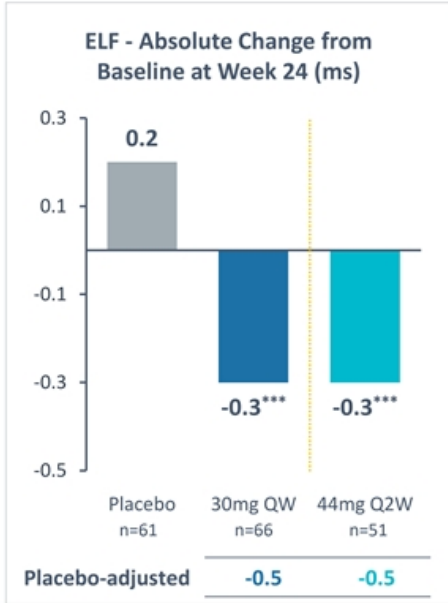
¹ALT normalization defined as patients with ALT ≥ 30 U/L at baseline (n=133) with end-of-study ALT <30 U/L.
 Source: Full Analysis Set: Analysis via mixed model with repeated measure (MMRM). Data presented as LS Means.
 ***p<0.001 versus placebo.

Pegozafermin Demonstrated Significant Reductions in Non-Invasive Markers (NITs) of Liver Inflammation and Fibrosis



Source: Full Analysis Set for FibroScan and PRO-C3 assessments and MRI-PDFF analysis set for cT1, Analysis via MMRM for cT1 and PRO-C3, ANCOVA for VCTE. A patient is designated a cT1 responder with ≥ 80 msec reduction as compared to baseline. cT1 analysis was performed at sites where available. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ versus placebo.

Pegozafermin Demonstrated Significant Improvements on Non-Invasive Markers (NITs) for Fibrosis



89bio Source: Full Analysis Set. NITs reported as LS means with changes from baseline (absolute or %) ***p<0.001 versus placebo.

Pegozafermin Demonstrated Sustained Benefits Across Key Liver NITs and Metabolic Markers At 48 Weeks of Treatment

WEEK 48



BACKGROUND

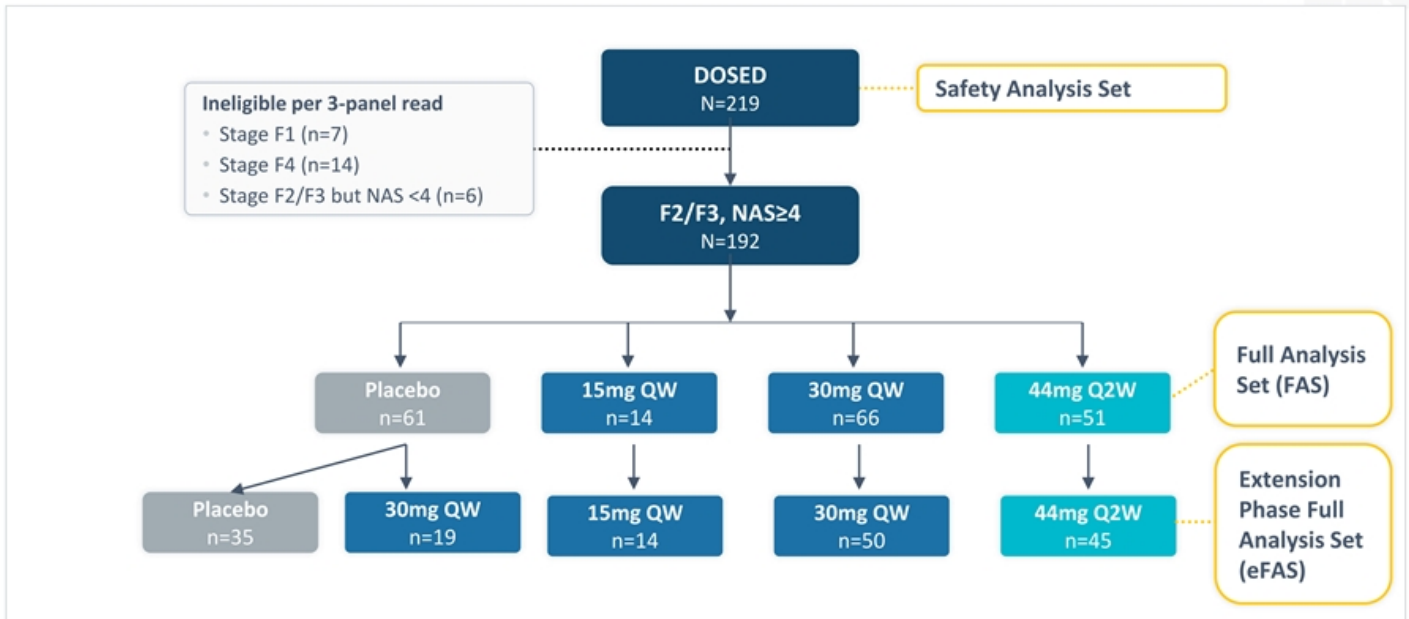
- After the Main Study (week 24), patients entered a 24-week blinded Extension Phase for a total of 48 weeks of treatment
- Liver benefits at week 48 assessed by NITs only. Repeat biopsies were not conducted
- Some placebo patients (n=19) were re-randomized at week 24 to receive pegozafermin 30mg QW during the Extension Phase



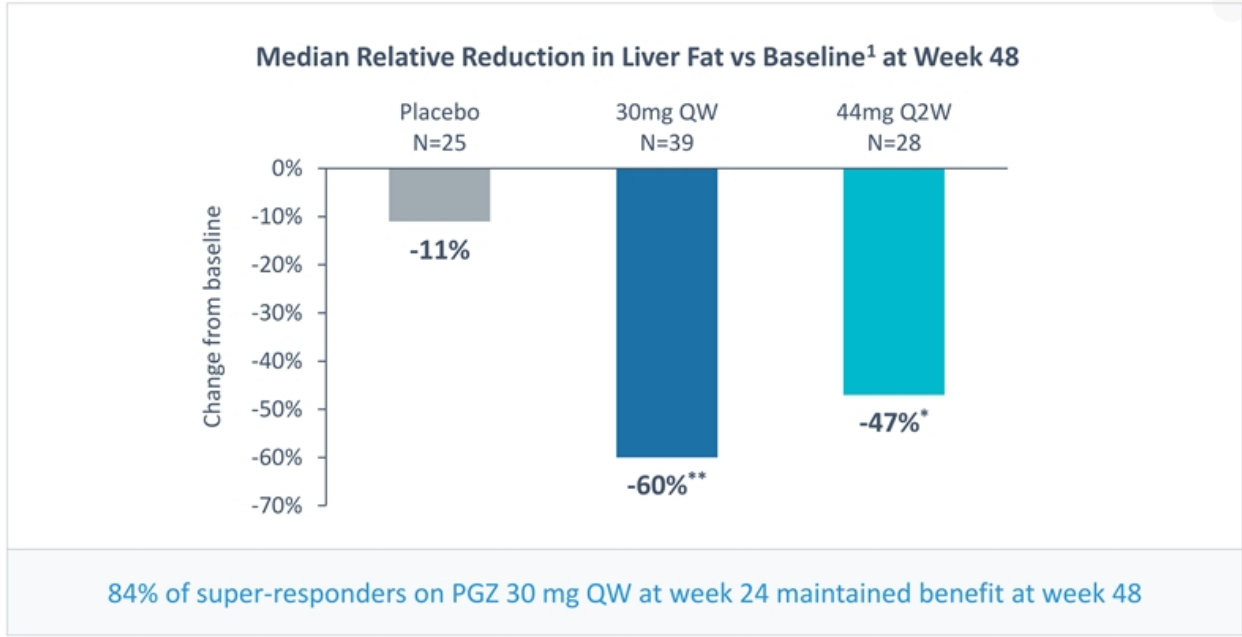
KEY RESULTS

- Robust effects were observed at week 48 on liver fat reduction, markers of liver fibrosis, inflammation and injury, and metabolic markers
- Maintenance of benefit was seen through week 48
- Benefit sustained in patients on background GLP-1 therapy and in patients with compensated cirrhosis (F4)
- Favorable safety and tolerability profile

ENLIVEN Patient Disposition and Analysis Sets



Pegozafermin Maintained Robust Liver Fat Reduction Measured by MRI-PDFF

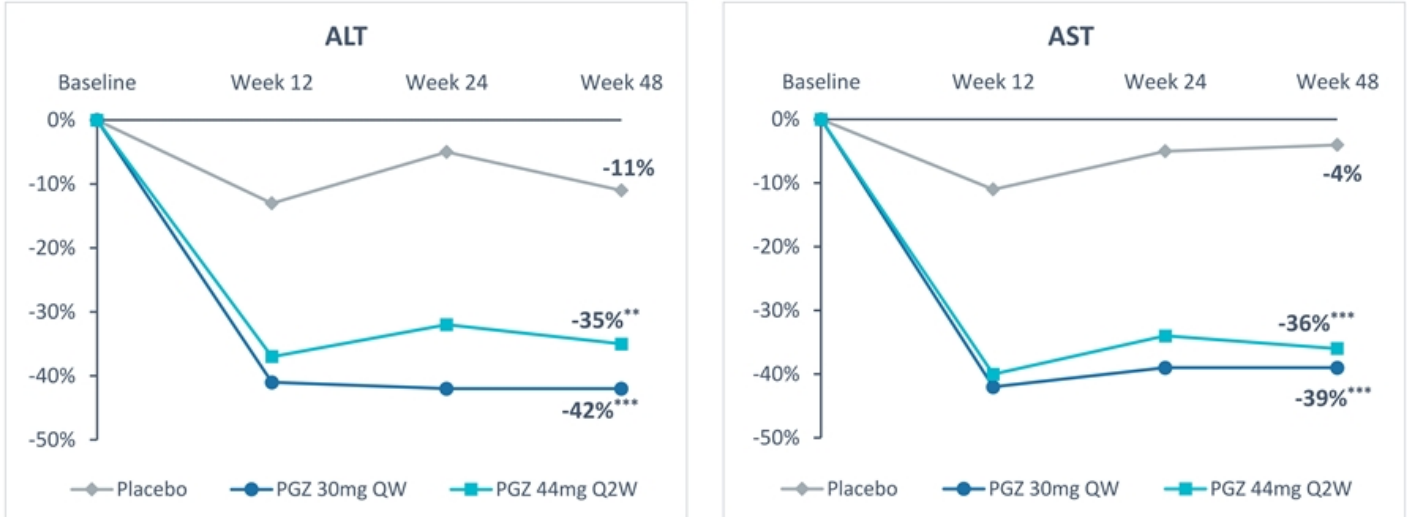


¹Analysis via non-parametric statistical method.
MRI-PDFF Analysis Set in patients with >10% liver fat at baseline.
*p<0.05, **p<0.01 versus placebo; super-responder defined as ≥50% relative reduction from baseline

Pegozafermin Demonstrated Sustained Improvements in Markers of Liver Injury/Inflammation (ALT and AST) over 48 Weeks

WEEK 48

Mean Percent Change from Baseline



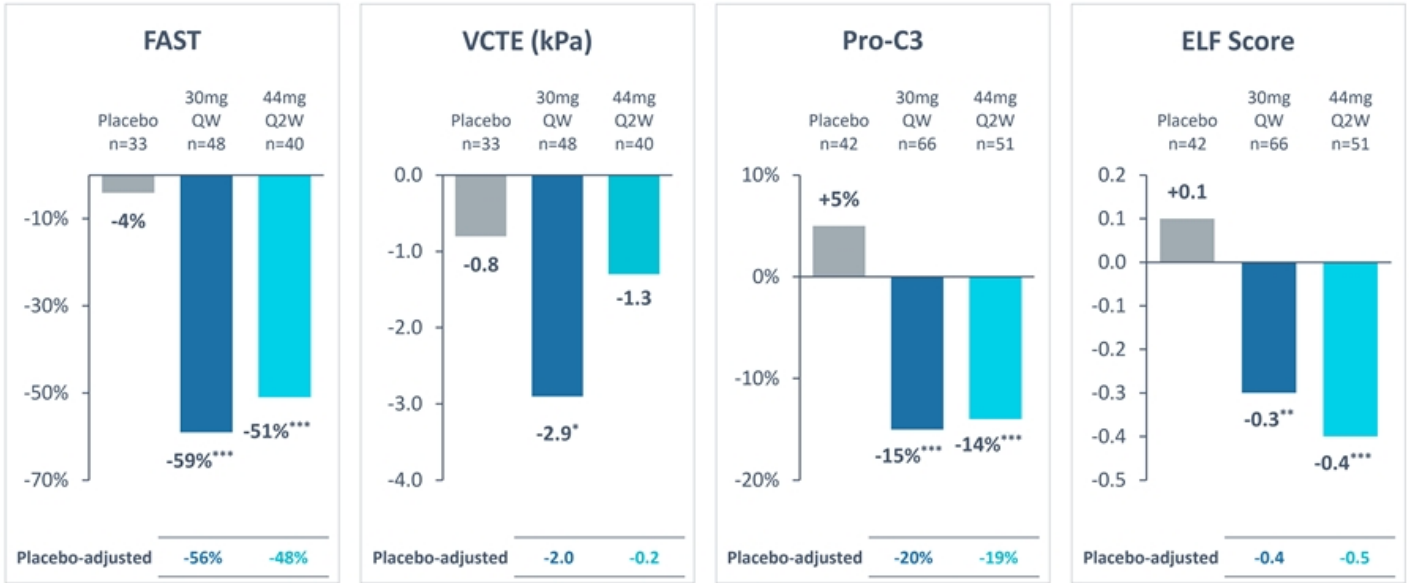
>85% of ALT responders maintained benefit from week 24 to week 48 on both PGZ doses



p<0.01, *p<0.001 versus placebo. Analysis via mixed model with repeated measure (MMRM). Baseline values based on Randomized Analysis set for total patients; results based on Full Analysis Set. ALT responder defined as ≥ 17 U/L reduction from baseline

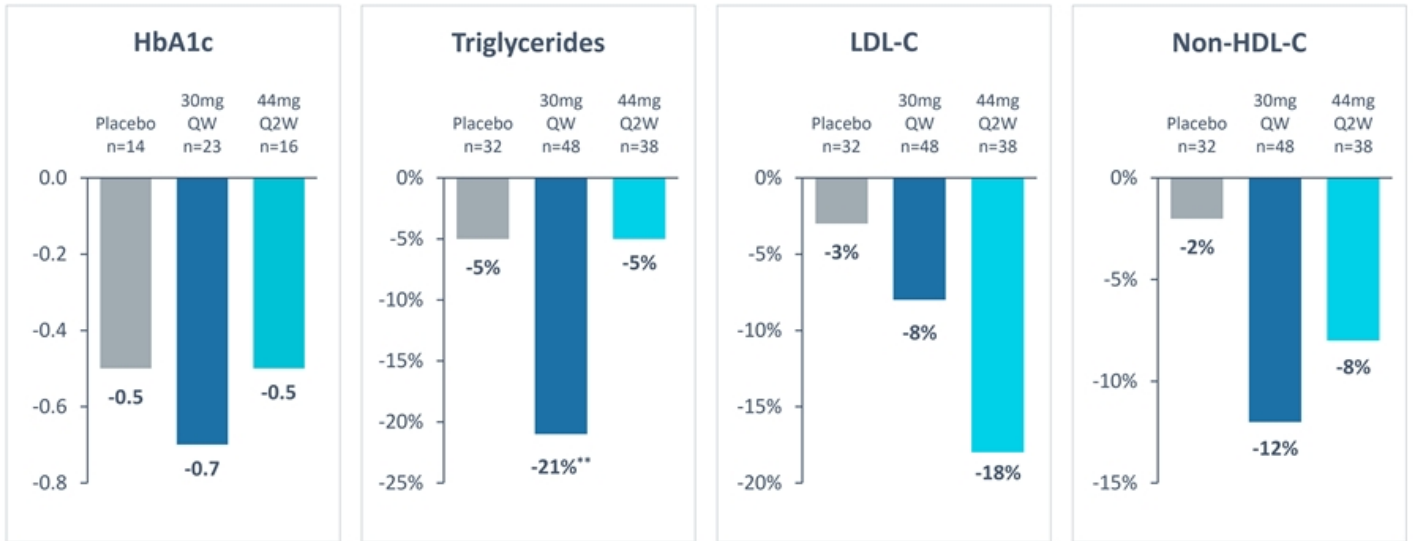
Pegozafermin Demonstrated Significant Reductions in NITs of Liver Inflammation and Fibrosis

WEEK 48



Analysis via MMRM for FAST, PRO-C3 and ELF score; via non-parametric statistical method for VCTE median relative reduction
 Source: Full Analysis Set, VCTE results from patients with week 48 assessment.
 *p<0.05, **p<0.01, ***p<0.001 versus placebo.

Pegozafermin Demonstrated Continued Benefit in Metabolic Endpoints



Analysis via MMRM for HbA1c and non-parametric statistical method for Triglycerides, LDL-C and Non-HDL-C; **p<0.01 versus placebo.
Source: Full Analysis Set; Median change from baseline except for HbA1c; HbA1c in patients with T2DM and baseline >7.0% (n=53)

Long-term Treatment with Pegzofermin Results in Sustained Improvements over a Wide Range of Liver NITs

WEEK 24

WEEK 48

	Placebo Week 24 (n=42)	Placebo Week 48 (n=35)	30mg QW Week 24 (n=66)	30mg QW Week 48 (n=50)	44mg Q2W Week 24 (n=51)	44mg Q2W Week 48 (n=45)
MRI-PDFF	-6%	-11%	-56%	-60%	-60%	-47%
ALT	0%	-11%	-42%	-42%	-32%	-35%
AST	-2%	-4%	-39%	-39%	-34%	-36%
Pro-C3	+6%	+2%	-18%	-15%	-17%	-14%
FAST	-3%	-1%	-56%	-59%	-57%	-51%
VCTE (kPa)	-0.1	-0.8	-2.8	-2.9	-1.5	-1.3
ELF score	+0.2	+0.1	-0.3	-0.3	-0.3	-0.4



Full Analysis Set; preliminary data
 LS mean change from baseline except for MRI and VCTE which are medians. VCTE n=139 at week 24; n=121 at week 48
 MRI-PDFF in patients with >10% liver fat at baseline (n=108 at week 24; n=92 at week 48)

Independent Patient Confirmation of Pegozafermin Treatment Effect

Placebo Patients Showed Robust Benefits Upon Crossing Over to Pegozafermin

WEEK 48

Change from Baseline

Parameter	Main Study Placebo n=19	Extension Phase 30mg QW n=19
MRI-PDFF	-21%	-63%
ALT	-2%	-32%
AST	-2%	-31%
PRO-C3	+8%	-17%
FAST	-14%	-53%
VCTE (kPa)	-0.7	-2.4
ELF score	+0.1	-0.2

19 patients were re-randomized from placebo to 30mg QW at week 24 and continued through week 48



Mean change from baseline except for VCTE which is median
MRI-PDFF in patients with >10% liver fat at baseline (n=17); Full Analysis Set

Pegozafermin Offered Additive Benefits to GLP-1 Therapy in Patients with NASH through Week 48

GLP1



BACKGROUND

- Results from 37 patients in ENLIVEN who were on GLP-1 therapy at baseline – 25 received pegozafermin, 12 received placebo
- Patients on GLP-1 were on stable doses for a minimum of six months with most patients on semaglutide or dulaglutide; most of these patients were also on additional diabetes medications
- Patients had comparable baseline characteristics across groups and relative to full study population



KEY RESULTS

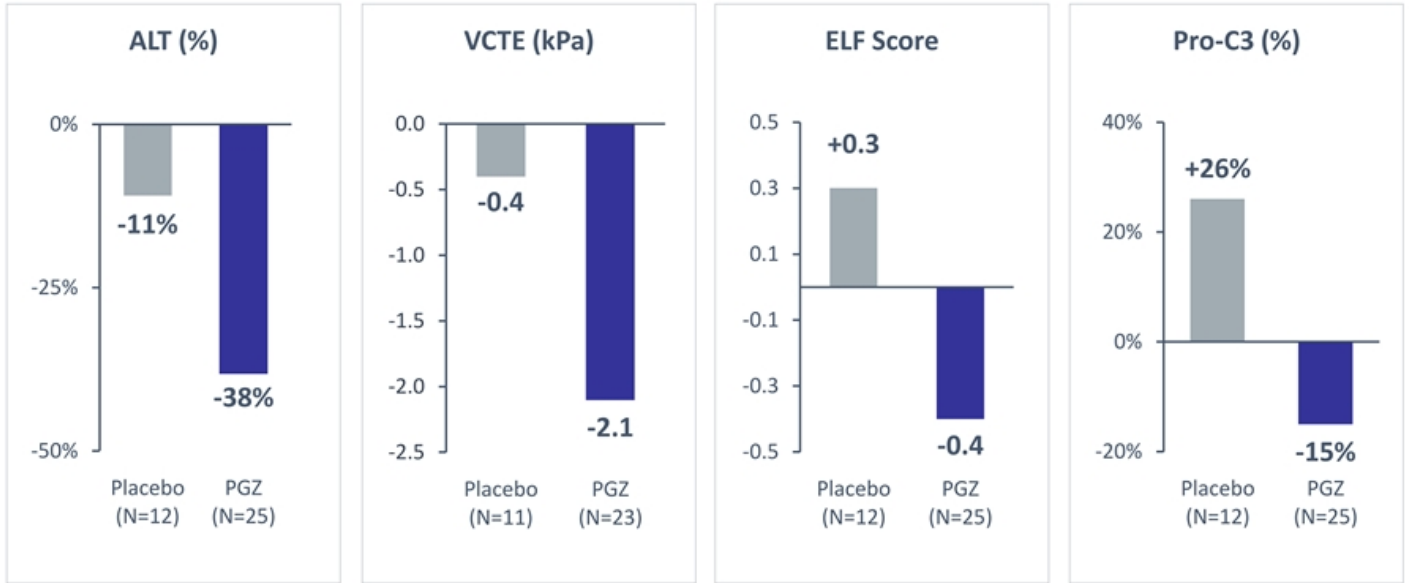
Pegozafermin on top of GLP-1 therapy showed the following versus GLP-1 plus placebo at week 24 and week 48:

- Improved Fibrosis
- Reduced Liver Fat
- Improved Liver Health
- Acceptable Tolerability Profile

Greater Benefits on Fibrosis Markers Were Observed with Pegzofermin vs. Placebo in Patients on Background GLP-1 Therapy at Week 24

WEEK 24

GLP1

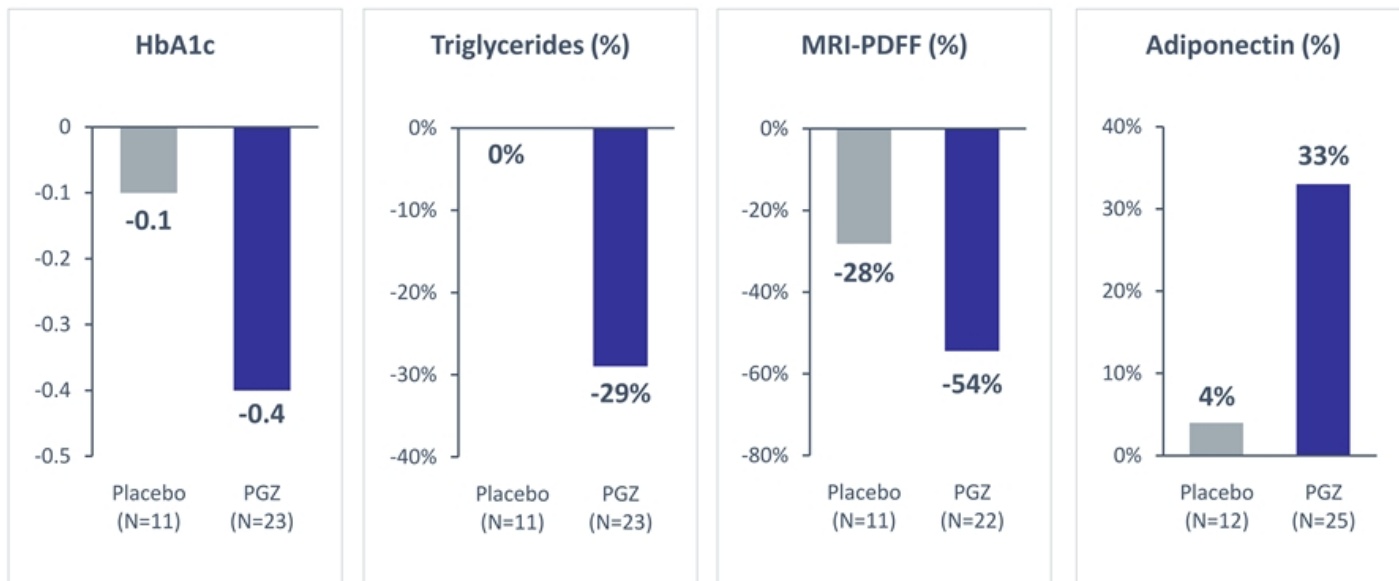


89bio Source: Full Analysis Set. ELF, ALT and Pro-C3 reported as LS mean change from baseline; VCTE reported as median change (absolute) from baseline. Post-hoc analysis

Greater Benefits on Metabolic Markers Were Observed with Pegzofermin vs. Placebo in Patients on Background GLP-1 Therapy at Week 24

WEEK 24

GLP1

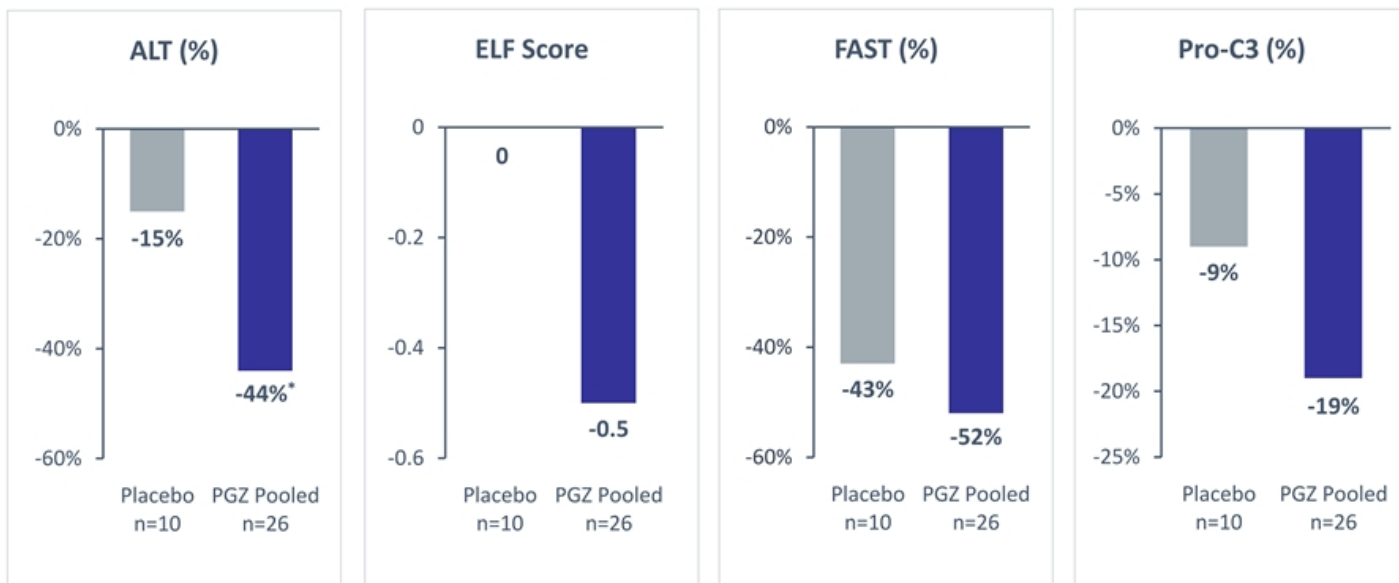


89bio Source: Full Analysis Set. Adiponectin reported as LS mean change from baseline; HbA1c reported as median change (absolute) from baseline; MRI-PDFF and TG reported as median percent change from baseline. Post-hoc analysis

Sustained Benefits on Fibrosis Markers Were Observed with Pegzofermin vs. Placebo in Patients on Background GLP-1 Therapy at Week 48

WEEK 48

GLP1

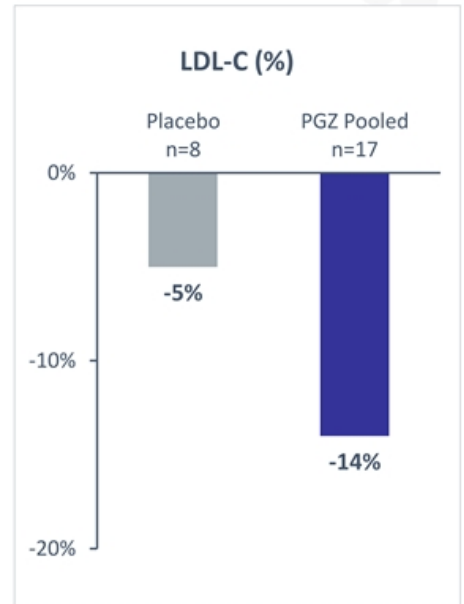
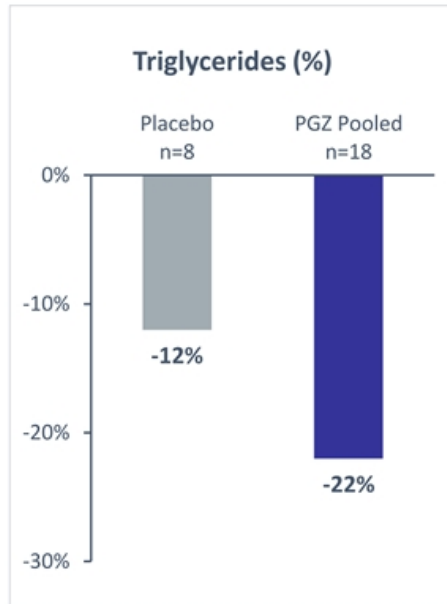
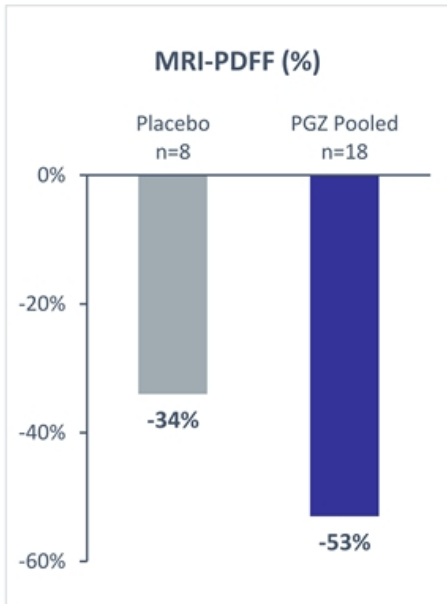


Source: Full Analysis Set. ELF, ALT, FAST and Pro-C3 reported as LS mean change from baseline. *p<0.05 versus placebo. Post-hoc analysis.

Sustained Benefits on Metabolic Markers Were Observed with Pegozafermin vs. Placebo in Patients on Background GLP-1 Therapy at Week 48

WEEK 48

GLP1



Pegozafermin Offers a Promising Profile in Patients with Compensated NASH Cirrhosis (F4)

F4



BACKGROUND

- ENLIVEN enrolled 14 NASH Stage F4 patients of which 12 patients had follow-up biopsies* at week 24
- Patients had baseline characteristics generally reflective of a well-compensated cirrhotic population



KEY RESULTS

- 45% of pegozafermin-treated patients had fibrosis improvement ≥ 1 stage without worsening of NASH
- Improvements in NITs of fibrosis, liver injury, and liver fat were observed through week 48
- Safety and tolerability profile in F4 was similar to the F2/F3 population

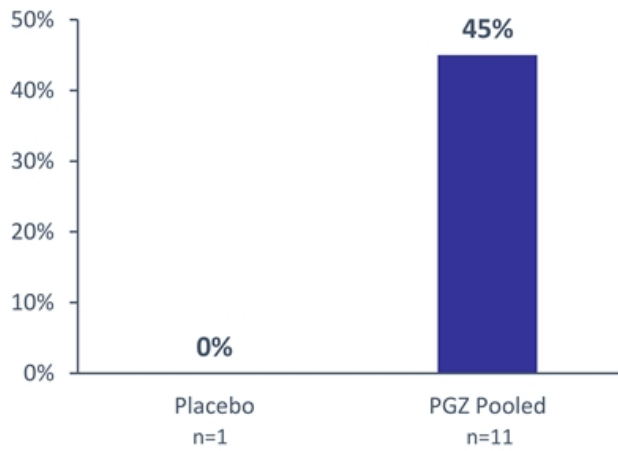
Pegozafermin Achieved Fibrosis Improvement Without Worsening of NASH in 45% of Patients with F4 Fibrosis at Baseline



WEEK 24

F4

Fibrosis Improvement ≥ 1 Stage Without Worsening of NASH



- Pegozafermin treatment led to fibrosis improvement ≥ 1 stage in 9/11 treated patients (82%)
- Pegozafermin treatment led to fibrosis improvement with no worsening of ballooning and inflammation in 7/11 treated patients

Pegozafermin Has Demonstrated Preliminary Evidence for Potential Best-in-Category Fibrosis Regression in Patients with F4 Fibrosis*

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akero

Bristol Myers Squibb

ngmBIO



Intercept

GILEAD

FGF21
PGZ | 24 weeks

FGF21
EFX | 36 weeks

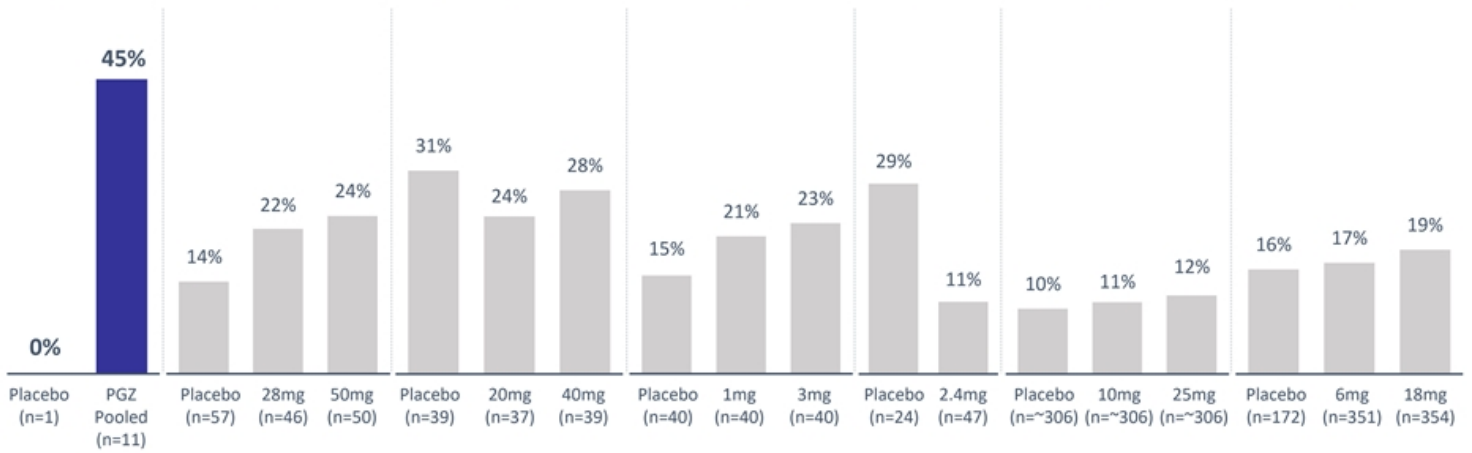
Peg-FGF21
Pegbelfermin | 48 weeks

FGF19
Aldafermin | 48 weeks

GLP-1
Sema | 48 weeks

FXR
Ocaliva | 78 weeks

ASK1
Selonsertib | 48 weeks



* If approved

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Note: These data are derived from different clinical trials at different points in time, with differences in trial design and patient populations. As a result, cross-trial comparisons cannot be made, and no head-to-head clinical trials have been conducted.

NIT Results over 48 Weeks in F4 Patients From ENLIVEN Demonstrated Consistent Benefit



PGZ Treated Patients (n=12)

Parameter	24 weeks	48 weeks
Liver Fibrosis and Inflammation		
ELF (units)	-0.3	-0.5
FAST	-46%	-42%
VCTE (kPa)	-2.7	-1.1
Pro-C3	-5%	-20%
FIB-4	-11%	-16%
Liver Injury		
ALT (%)	-53%	-58%
AST (%)	-31%	-38%

High correlation between NIT responders and fibrosis improvement (AASLD 2023)

Pegozafermin Was Well Tolerated Through 48 Weeks



Drug-related TEAEs in ≥10% of patients during the Main Study

Preferred Term	Placebo (n=69)	15mg QW (n=21)	30mg QW (n=72)	44mg Q2W (n=57)
Diarrhea	3%	24%	17%	9%
Nausea	1%	14%	21%	18%
Injection site erythema	3%	14%	14%	5%
Injection site rash	1%	0	10%	4%
Increased appetite	0	10%	13%	5%

Additional Patients that Reported Drug-related TEAEs during the Extension Phase*

Preferred Term	Placebo (n=50)	15mg QW (n=21)	30mg QW (n=72)	44mg Q2W (n=57)
Diarrhea	2%	0	0	0
Nausea	0	0	0	0
Injection site erythema or rash	0	0	0	0
Increased appetite	2%	0	1%	0

At week 48, no statistically significant or clinically meaningful changes were observed in blood pressure, bone biomarkers or DXA with PGZ 30 mg QW or 44 mg Q2W relative to placebo. No treatment-related AE discontinuations during the extension phase.

Phase 3 ENLIGHTEN Studies in NASH Expected to Initiate in 1H24
 FDA and EMA Generally Aligned on Phase 3 Program



ENlighten Fibrosis:
 in F2-F3 NASH patients

ENlighten Cirrhosis:
 in Compensated F4 NASH patients

Design/ Doses	Randomized, double-blind, placebo-controlled trial of pegozafermin 30mg QW and 44mg Q2W	Randomized, double-blind, placebo-controlled trial of pegozafermin 30mg QW
Histology Portion for Accelerated Approval	Co-primary endpoints: one-point improvement in fibrosis with no worsening of NASH and NASH resolution with no worsening of fibrosis Duration: 52 weeks	Primary endpoint: regression of fibrosis from F4 to an earlier stage of fibrosis Duration: 24 months, with potential to assess earlier based on the evolving clinical and regulatory landscape
Outcomes Portion for Full Approval	<ul style="list-style-type: none"> • Patients continue to clinical outcomes to support full approval in F2-F3 patients • Outcomes defined per FDA guidance document 	<ul style="list-style-type: none"> • Patients continue to clinical outcomes to support full approval across F2-F4 patients • Modifications to some outcome definitions to allow trial to reach final number of events quicker, and therefore potentially accelerate timeline to readout

Safety Database: Regulatory alignment on size of safety database including data from the ongoing SHTG Phase 3 program

Drug Presentation: Liquid formulation in pre-filled syringe (planned commercial presentation; stable at 2-8 C)

Pegozafermin Has Potential to Address a Large Commercial Opportunity



NASH represents a large patient population with significant health risks

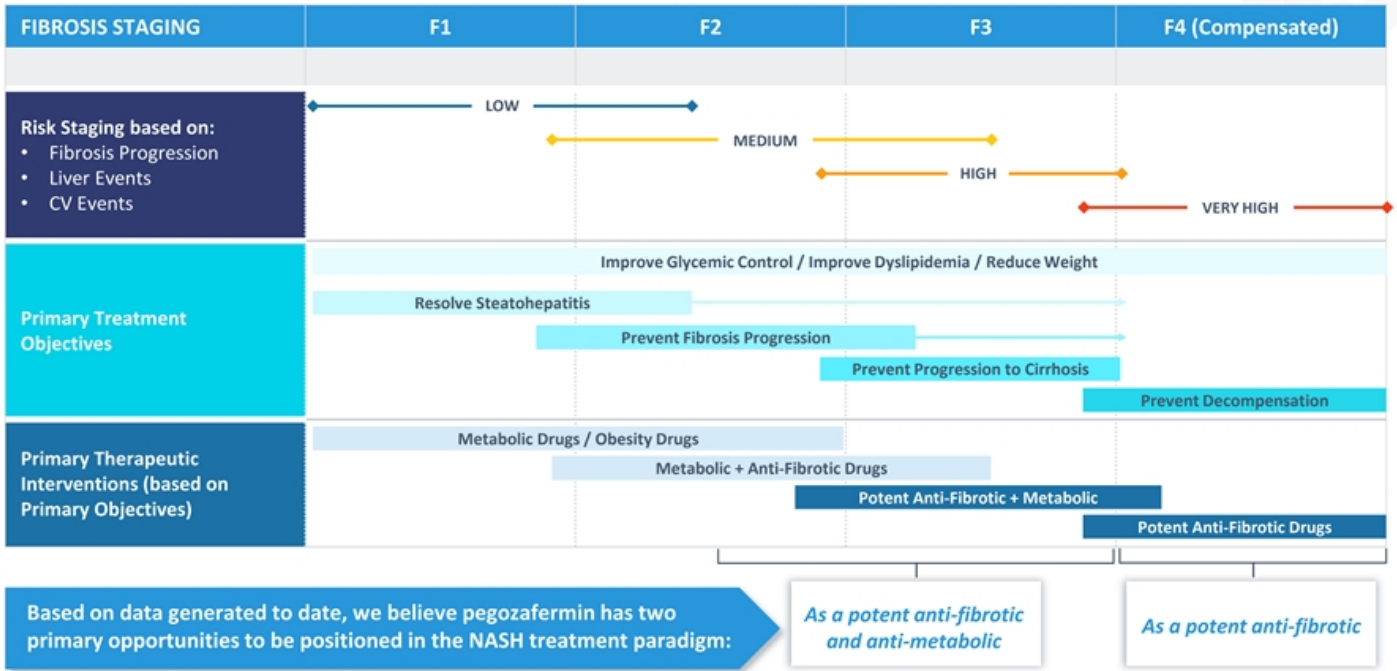
- NASH is estimated to impact ~30M patients by 2030 in the US with equivalent number in EU

Significant market opportunity for pegozafermin

- Pegozafermin positioned for NASH patients with (i) advanced fibrosis and (ii) compensated cirrhosis
- Pegozafermin is uniquely positioned to meet the primary treatment objectives for these patients - reversal of fibrosis stage and prevention to cirrhosis or decompensation
 - Potent anti-fibrotic drugs like pegozafermin are expected to be the preferred option to treat NASH versus metabolic drugs that reduce fat and indirectly improve liver health over time
 - Pegozafermin data showed additive benefits to GLP-1 based therapies for NASH patients
- Large NASH market is likely to support drugs with different mechanisms of action and multiple drugs within a specific mechanism (similar to T2DM or LDL therapeutic area)



NASH Treatment Paradigm and Pegzofermin Positioning





Pegozafermin Offers a Highly Differentiated Profile

Pegozafermin differentiates on key attributes for an effective NASH drug

- 1 **EFFICACY:** Potential best-in-category fibrosis data*; robust metabolic data; benefits on top of T2DM/obesity drugs
- 2 **SAFETY AND TOLERABILITY:** Potential best-in-class (FGF21) tolerability profile with fewer GI events and no tremors
- 3 **DOSING:** Convenience of every-two-week injections (26 fewer annual injections) – strongly preferred by patients (~66%); physicians like the optionality offered with two dosing regimens (QW and Q2W)

FGF21 class could have multiple successful drugs

- Best-in-category mechanisms have had multiple successful drug with the same MOA; e.g., 4 different GLP-1 RAs for T2DM each had sales > \$1B in 2022 (two were the 4th and 5th entrants)

NASH commercialization considerations

- Pegozafermin target audience in the US is estimated to be approximately 7,300 hepatology providers requiring a relatively modest sales force
- Payers expected to support premium pricing for advanced fibrosis and cirrhotic patients based on medical necessity and cost effectiveness models

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Opportunity in Severe
Hypertriglyceridemia (SHTG)



Pegozafermin Could Offer an Important New Treatment Option for SHTG

Topline results expected in 2025

Large growing patient population with significant health risks; overlap with NASH patient population

- Increasing TG levels increase risk of acute pancreatitis, cardiovascular disease and all-cause mortality
- Emerging evidence of the cardiovascular (CV) benefit associated with TG reduction in patients with CV risk factors

Significant market opportunity for agent with broad metabolic benefits

- Pegozafermin has a unique selling proposition that is meaningful to prescribers – more effective triglyceride reduction with improvements in liver fat and other metabolic measures
- Analyst consensus peak year sales estimated to be greater than \$1 billion (US only)

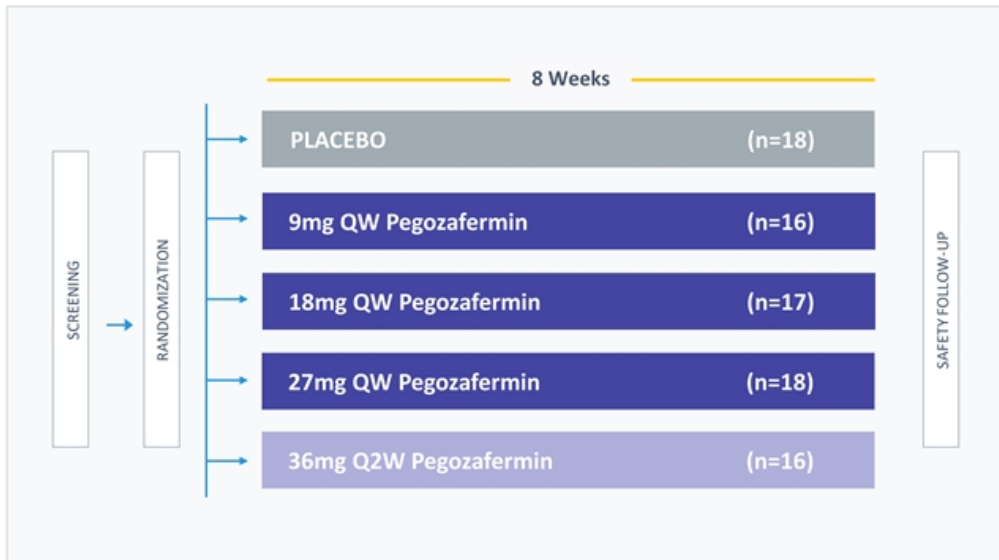
Clinical program substantially de-risked

- Phase 3 ENTRUST trial initiated; design similar to positive Phase 2 ENTRIGUE design with same primary endpoint
- Agency alignment on trial design and regulatory path to approval

SHTG program is synergistic with the NASH program

- Development: Leverages safety database across the two programs to minimize spend across total program
- Commercial: Leverage sales force and infrastructure costs

ENtrigue – Phase 2 SHTG Trial Design



KEY INCLUSION CRITERIA

- TG \geq 500mg/dL and \leq 2,000mg/dL
- Background therapy: statins and/or prescription fish oil and/or fibrates OR none

PRIMARY ENDPOINT

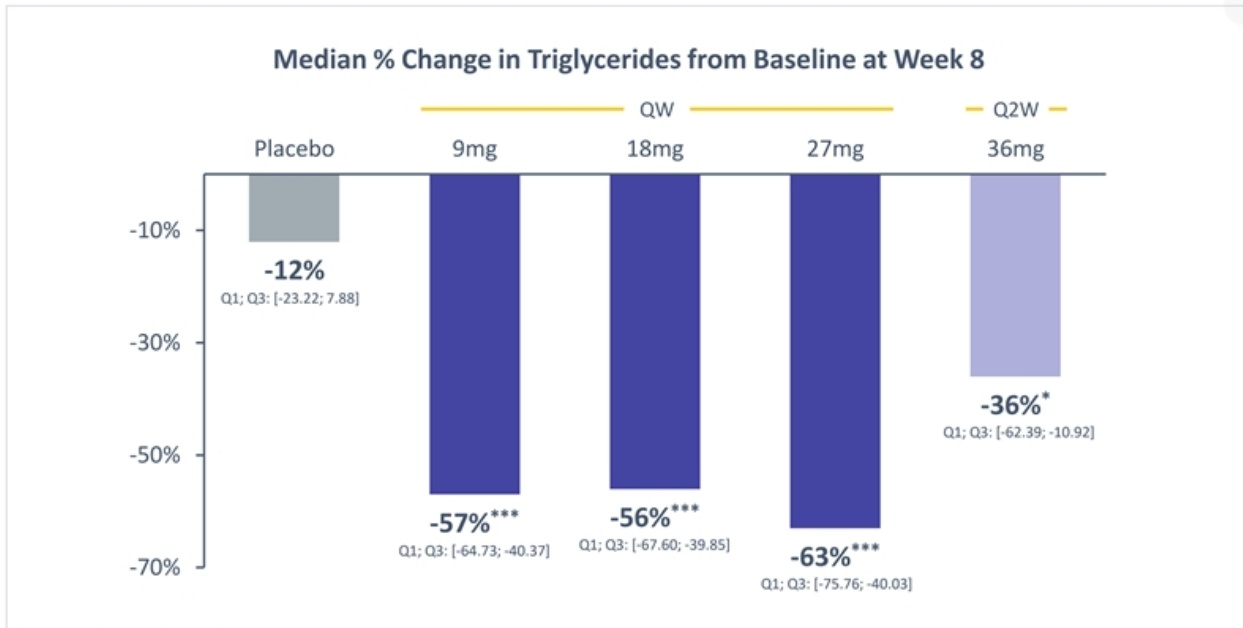
- Primary endpoint: % Change in TGs from baseline

KEY SECONDARY ENDPOINTS

- Lipids: non-HDL-C, HDL-C, Apo-B
- Liver fat (MRI-PDFF)
- Glycemic control

Magnetic Resonance Imaging – Proton Density Fat Fraction
 QW, once-weekly; Q2W, once every two weeks.
 Safety analysis set, n=85 (patients who received at least 1 dose)
 Full analysis set, n=82 (patients with at least 1 post-baseline TG assessment)
 MRI analysis set n=23 (patients with baseline and end of treatment MRIs)

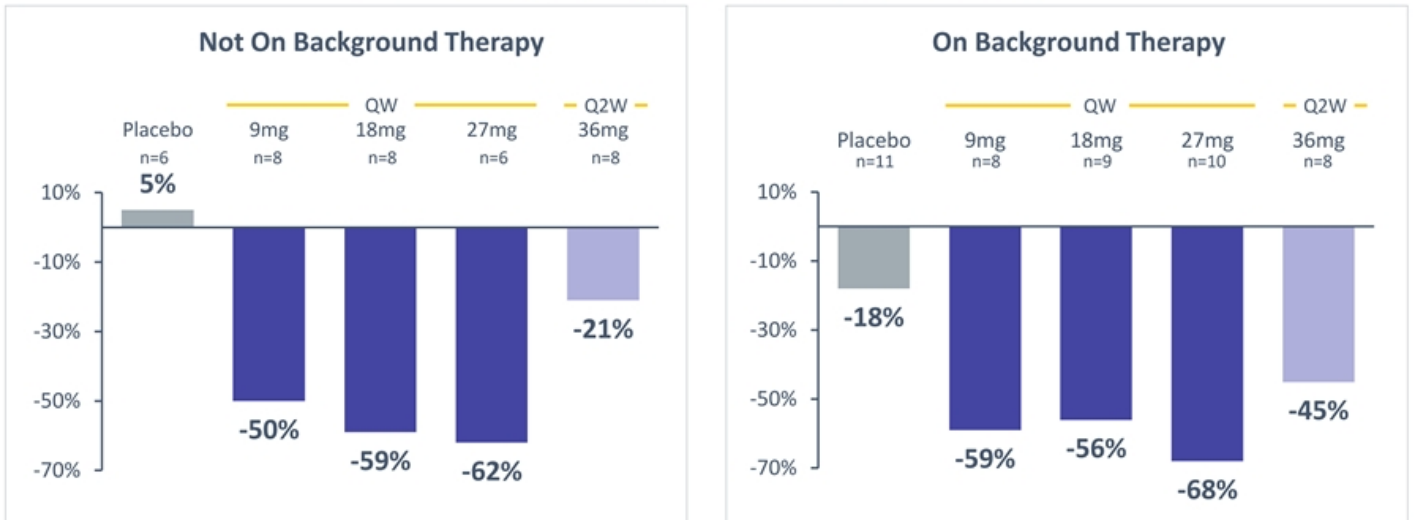
Pegozafermin Significantly Reduces Triglycerides Across All Dose Groups



p value vs placebo for change from baseline based on Wilcoxon Rank-Sum Test Full Analysis Set; * p<0.05; ** p<0.01; *** p<0.001 vs. placebo

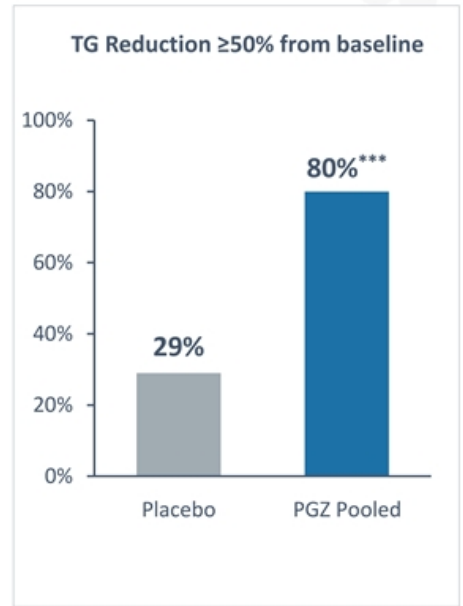
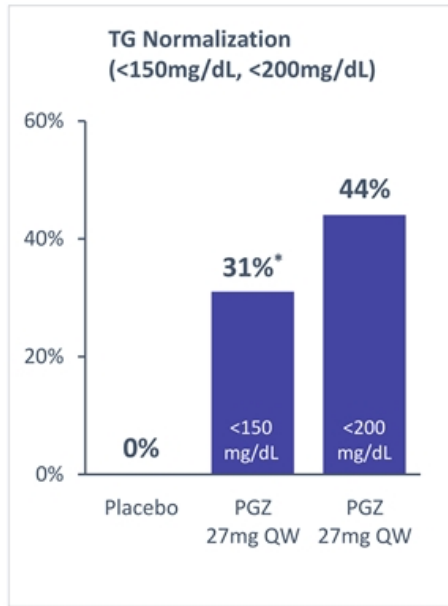
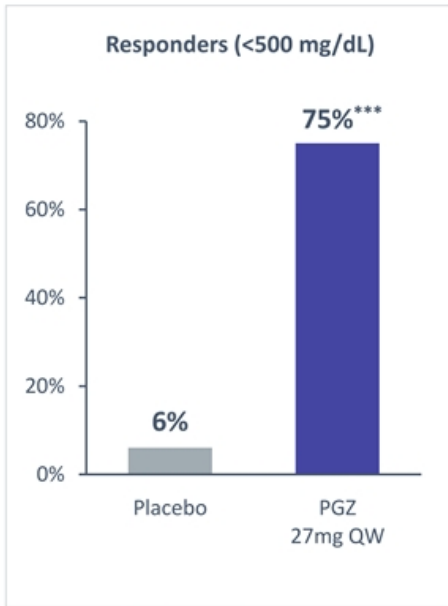
Pegozafermin Shows Significant Decrease in Triglycerides on Top of Background Therapy

Median % Change in Triglycerides from Baseline at Week 8



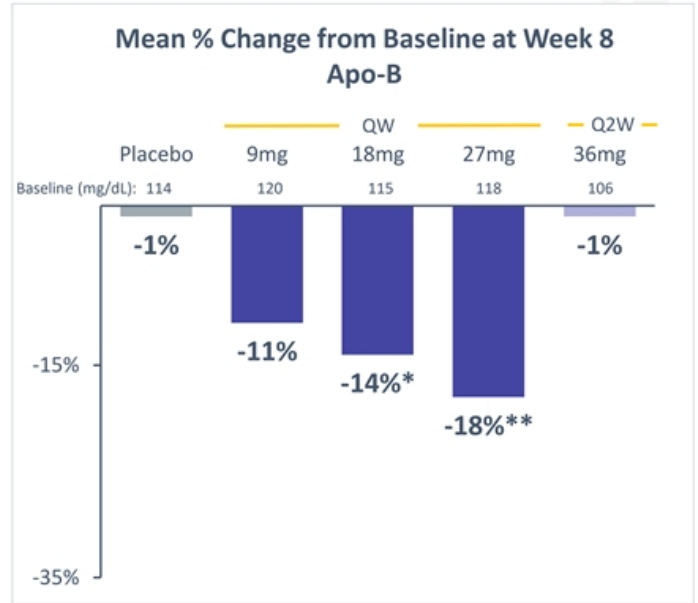
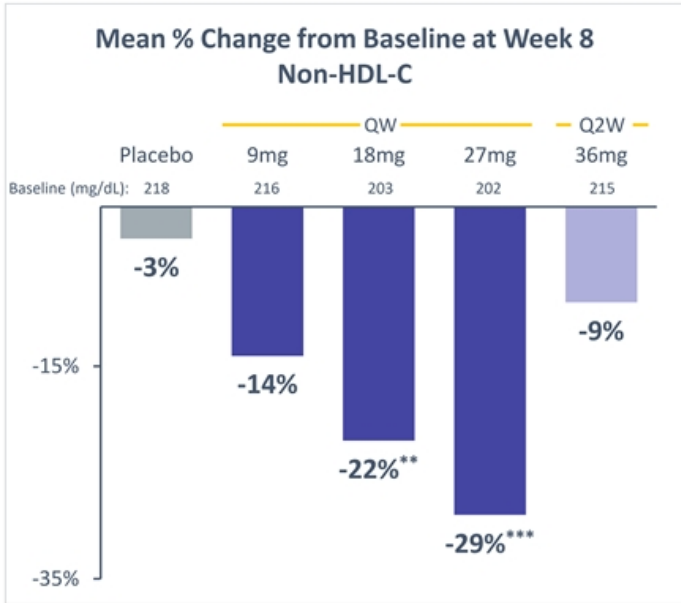
Results are consistent with data from patients on background therapy of statins or statin combos, prescription fish oils, and fibrates

Pegozafermin Shows Significant Decrease in Triglycerides at Different Threshold Levels



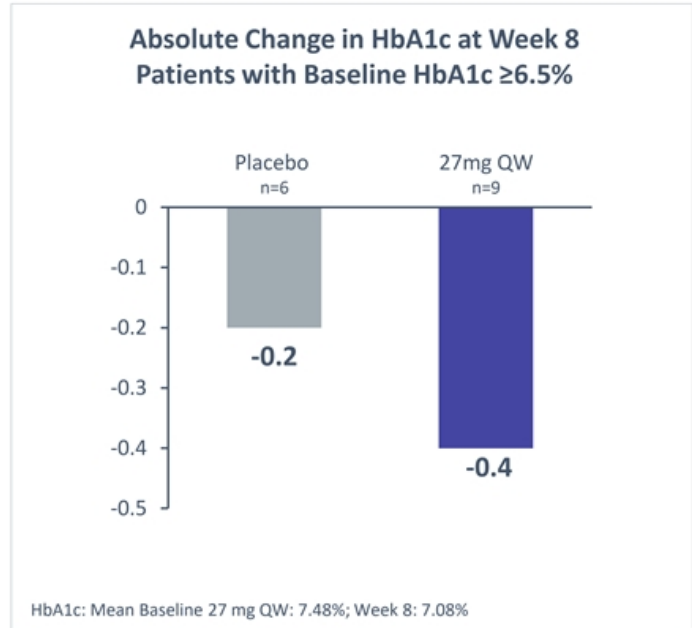
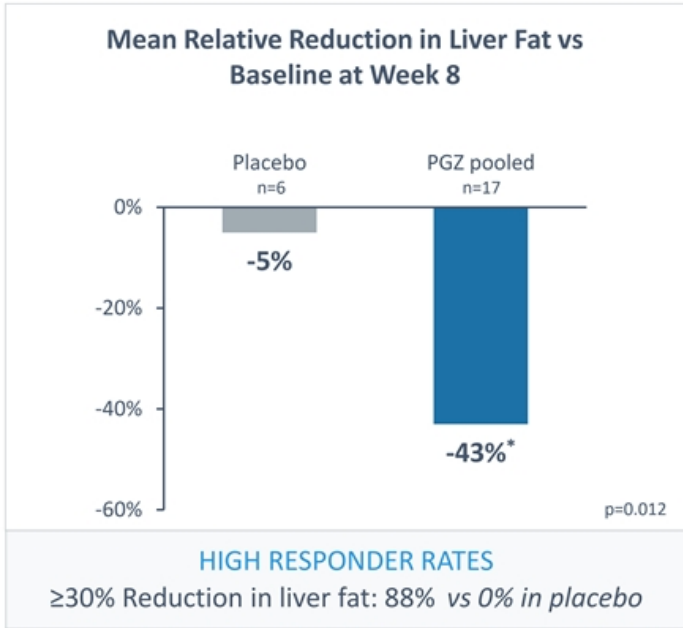
Analysis via unstratified Chi-square Test comparing the individual PGZ groups vs placebo. * p<0.05; ** p<0.01; *** p<0.001 vs. placebo
TG Responders defined as patients who achieve TG <500 mg/dL
Full Analysis Set

Pegozafermin Demonstrated Clinically Meaningful Improvements in Non-HDL-C and Apo-B – Key Marker of CV Risk



89bio Full Analysis Set; * p<0.05; ** p<0.01; *** p<0.001 vs. placebo based on MMRM analysis

Pegozafermin Demonstrated Significant Improvement on Key Co-morbidities in SHTG – Liver Fat and Glycemic Control



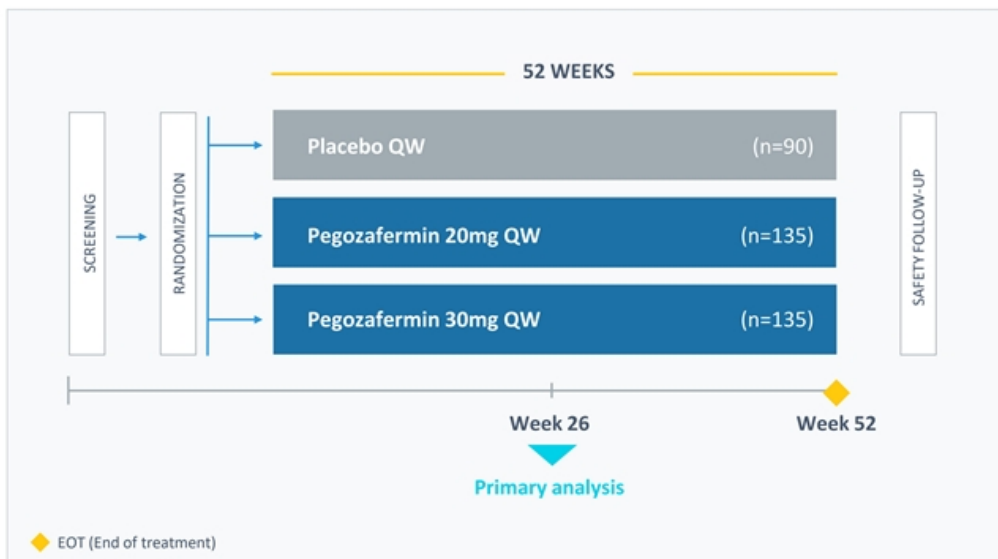
Post-hoc analysis of patients with follow-up MRI-PDFF ≤21 days from date of last dose in 27mg QW cohort demonstrated a 63% mean relative reduction from baseline
 *p <0.05 vs. placebo
 MRI Analysis Set; p value vs placebo based on ANCOVA analysis

Pegozafermin Demonstrated Favorable Safety/Tolerability Profile in Phase 2 Study



- Pooled pegozafermin treatment related Adverse Events (AEs) observed in $\geq 7.5\%$ of patients were:
 - Nausea (10%), diarrhea (9%) and injection site reaction (9%) vs placebo (0%)
 - All Gastrointestinal (GI) AEs were Grade 1 or 2
- No Grade 3 or higher AEs
- No treatment-related SAEs; 2 treatment-related discontinuations at 27mg QW (both Grade 2)
- No tremor or hypersensitivity AEs reported
- No adverse effects on blood pressure or heart rate

Phase 3 ENTRUST Trial Design



KEY INCLUSION CRITERIA

- TG \geq 500mg/dL and \leq 2,000mg/dL
- Stable background lipid modifying therapy*

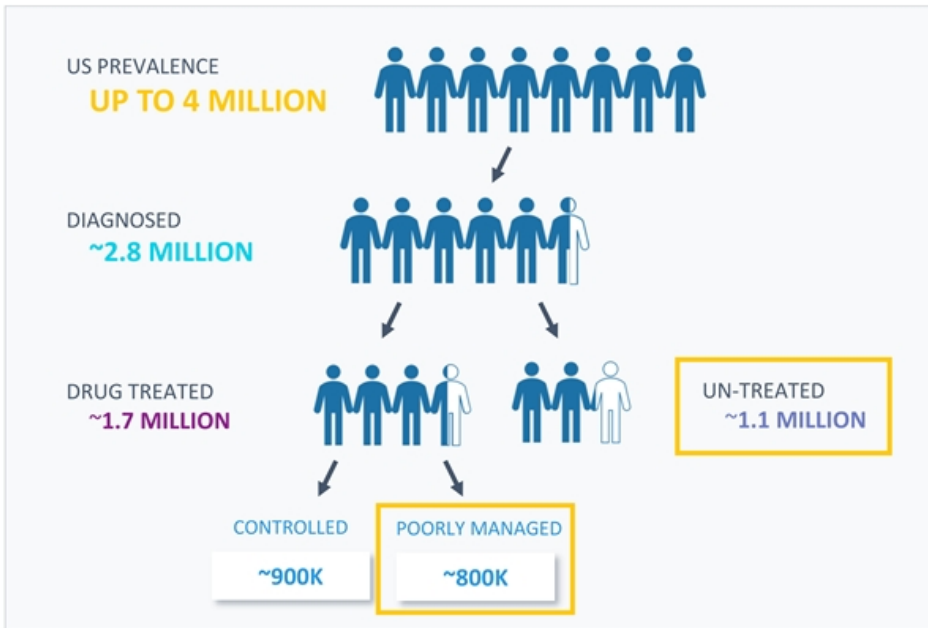
PRIMARY ENDPOINT

- Percent change from baseline in fasting TGs at Week 26 vs. placebo

KEY SECONDARY ENDPOINTS

- Liver fat by MRI-PDFF, Various lipids, HbA1c at Week 26 vs. placebo, TGs at Week 52 vs. placebo

SHTG Represents a Large Population with High Unmet Need



Co-morbidity	Prevalence in SHTG population
Fatty Liver Disease (NAFLD)	Up to 100%
Type 2 diabetes/Prediabetes	Up to 70%
Dyslipidemia	Up to 65%

Pegozafermin profile is unique and compelling to physicians because of potential for metabolic benefits

Pegozafermin Delivers on Key Attributes for Successful SHTG Therapy



PEGOZAFERMIN ATTRIBUTES →

- Generally well-tolerated
- 43% mean relative reduction in liver fat¹
- 0.4% absolute reduction in HbA1c²
- 63% reduction in TG from baseline²
- 80% of patients achieved TG < 500mg/dL¹

Physician Enthusiasm for Metabolic Endpoints

LOW HIGH | LOW HIGH

Liver fat reduction | Decrease in HbA1c

¹Pooled pegozafermin data at week 8

²27mg pegozafermin data at week 8

RoA: Route of Administration.

Source: Physician Interviews; ClearView Analysis, 2022.

Pegozafermin Profile Supports Utilization Over Current Standard of Care and Future Competitive Agents



	IN DEVELOPMENT		APPROVED			
	Pegozafermin Potential	APOC3 Potential	Fibrates	Prescription Fish Oils		Statins
				Vascepa	Lovaza	
Triglyceride reduction	✓✓✓	✓✓✓	✓✓	✓	✓✓	✓✓
Liver fat/Fibrosis reduction	✓/✓	✓/—	Worsens liver fat	—	—	—
Insulin sensitizing	✓	—	—	—	—	—
Apo-B lowering	✓	✓	—	✓	—	✓
ALT lowering	✓	Transaminase elevations observed	Monitor ALT	—	May require ALT monitoring	Monitor ALT

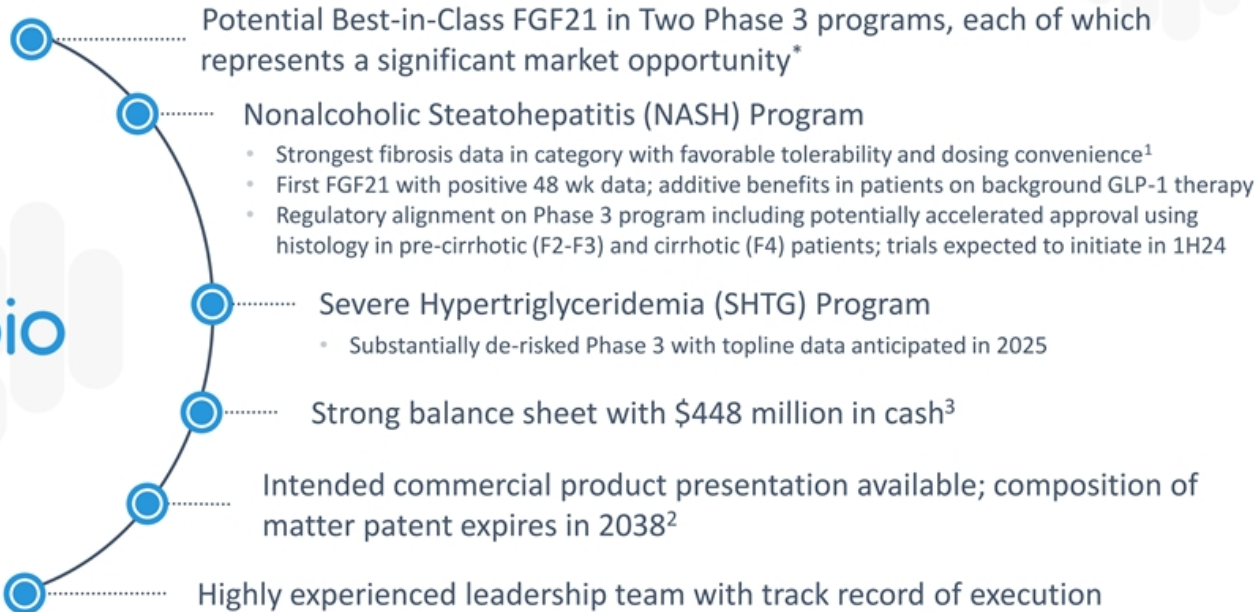
For triglyceride reduction: ✓✓✓ = ≥60%, ✓✓ = 31%-59%, ✓ = ≤30% — = No effect/Not reported

APOC3s are likely to be commercialized first in FCS vs. pegozafermin usage in the broader market in patients with co-morbidities



Sources: Feingold KR. Triglyceride Lowering Drugs. [Updated 2021 Apr 1]. In: Feingold KR, Anawalt B, Boyce A, et al., editors. Prescribing information. Corporate presentations. Note: All data regarding third-party molecules on this slide are based on third-party studies, which are in different stages of development, and not our own. Conclusions on this slide are company estimates and are not based on head-to-head results.

Corporate Highlights



¹ Efficacy comparison based on relative risk ratios and not based on head-to-head results

² Patent expiration date excludes any patent term extension or new patents

³ Cash, cash equivalents and short-term investments as of September 30, 2023; excludes in-the-money warrants of approximately \$50 million that expire on June 30, 2024

* If approved

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Appendix



Experienced Management Team Positions 89bio for Success



Rohan Palekar
CEO

CEO, CCO experience
Commercial, strategy,
and R&D experience

Hank Mansbach, MD
CMO

20+ years biopharma and
R&D leadership in clinical
development and medical
affairs

Ryan Martins
CFO

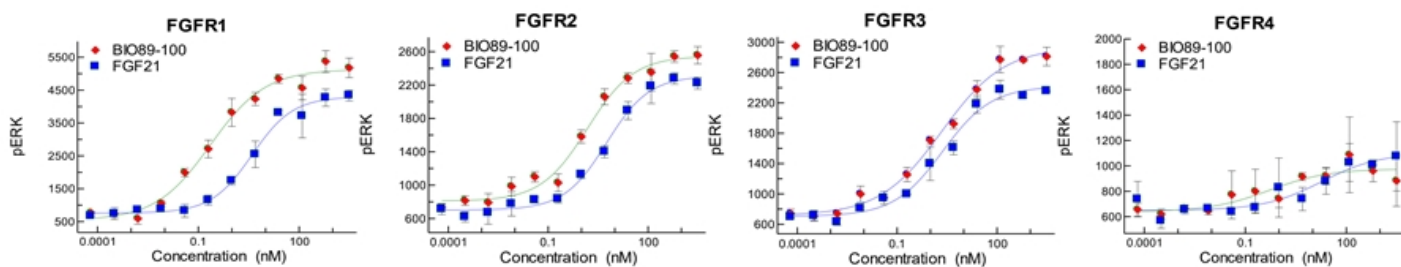
CFO, Strategy/IR,
finance, sell-side
experience

Quoc Le-Nguyen
CTO & Head of Quality

20+ years biopharma and
leadership in technical
operations, product supply,
and quality



Pegozafermin Exhibits Highly Potent FGF Receptor Agonism



Pegozafermin has the potential to reproduce the beneficial metabolic effects of native FGF21

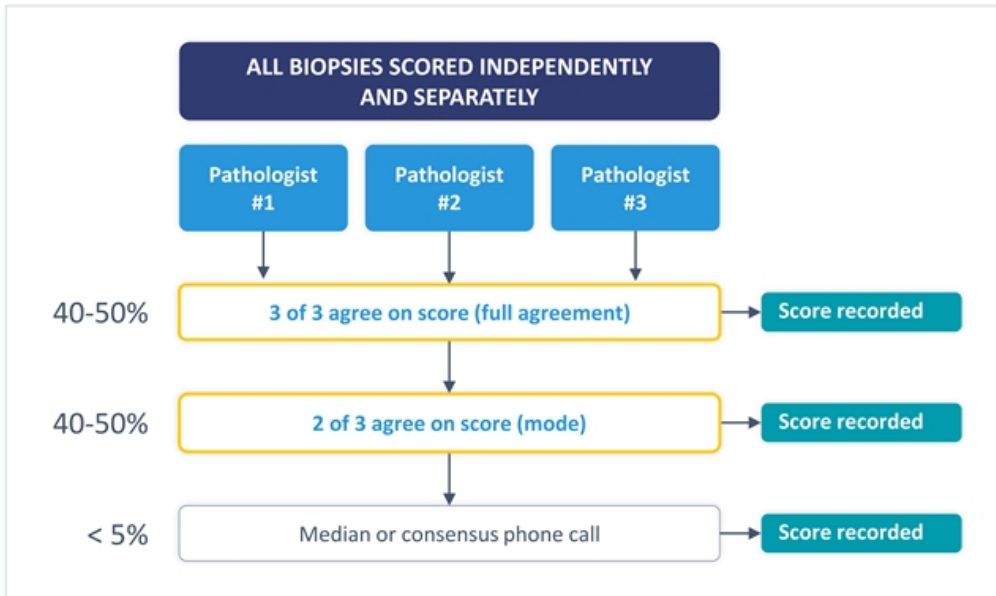
RECEPTOR	FGF21	Pegozafermin
	EC ₅₀ (nM) Mean ± S.D.	EC ₅₀ (nM) Mean ± S.D.
KLB	nd	nd
KLB/FGFR1	4.5 ± 1.0	0.3 ± 0.07
KLB/FGFR2	4.5 ± 0.9	1.1 ± 0.4
KLB/FGFR3	1.8 ± 0.3	1.2 ± 0.4
KLB/FGFR4	nd	nd

nd – not determined; rhFGF19 EC₅₀ at FGFR4 = 1.7 ± 0.4



* Receptor agonism measured in L6 cells expressing β-klotho and either FGF Receptor 1c, 2c, 3c, or 4 via pERK functional assay
 ** Figures represent data from a single experiment; Table represents mean data from multiple experiments

ENLIVEN Used Objective Biopsy Reading Methodology Designed to Reduce Histology Scoring Biases and Variability



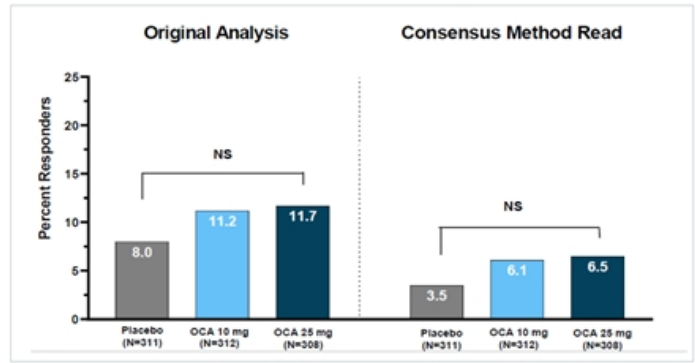
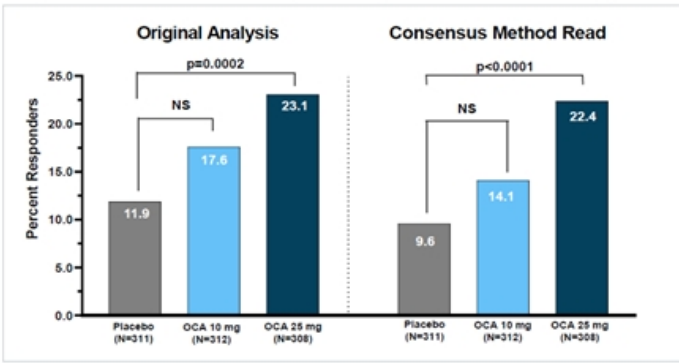
- Pathologists underwent protocol-specific harmonization training before and during trial
- Pathologists were blinded to patient, treatment and sequence
- >99% of final scores determined by a priori established algorithm, versus resolving disagreements via inter-reader discussion

Learnings from the Obeticholic Acid NASH Phase 3 Program: Comparison of Single Central Reader vs. 3-Panel Consensus



Improvement of Fibrosis by ≥ 1 Stage without Worsening NASH

Resolution of NASH with No Worsening of Liver Fibrosis



OBSERVATIONS:

- Placebo response for NASH resolution is >2 fold higher with single reader vs 3-panel consensus
- Placebo response similar to ENLIVEN study for both fibrosis improvement and for NASH resolution

IMPLICATIONS:

- 3-panel consensus highlights treatment delta but dampens absolute response
- 3-panel consensus methodology can reproduce low placebo response in phase 3 trial

Pre-Specified ITT Analysis Confirms Robustness of Primary Efficacy Results



ITT (missing data = non-responder); (n=192) at Week 24

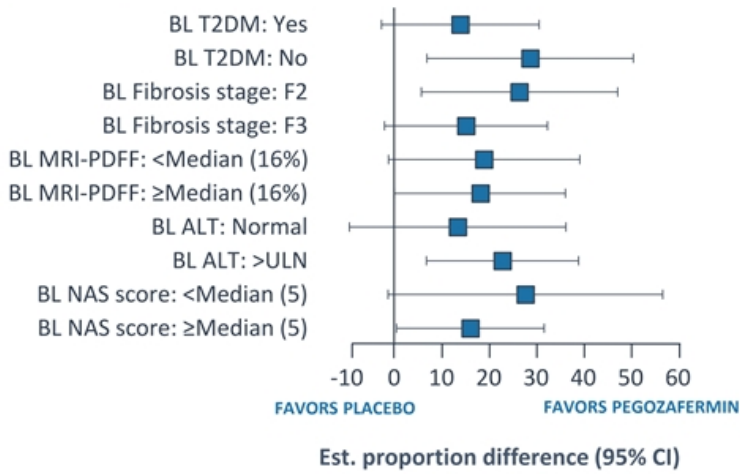
	30mg QW	44mg Q2W
Fibrosis improvement without worsening of NASH		
Effect Size (placebo-adjusted)	15%	16%
p-value	0.019	0.015
NASH resolution without worsening of fibrosis		
Effect Size (placebo-adjusted)	17%	20%
p-value	0.0019	0.0009

Pegozafermin Showed Consistent and Significant Benefit in Achieving Fibrosis Improvement Across Prespecified Subgroups



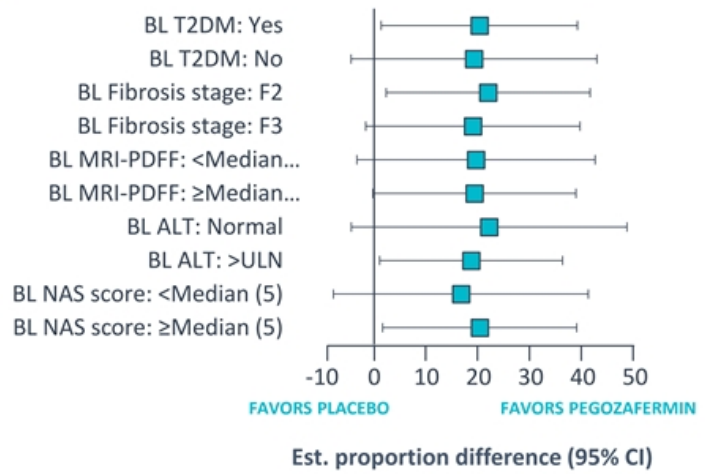
Pegozafermin 30mg QW

Proportion Achieving Fibrosis Improvement



Pegozafermin 44mg Q2W

Proportion Achieving Fibrosis Improvement



Source: Full Analysis Set

ALT, alanine aminotransferase; BL, baseline; MRI-PDFF, magnetic resonance imaging proton density fat fraction; NAS, Nonalcoholic fatty liver disease Activity Score; NASH, nonalcoholic steatohepatitis; Q2W, every 2 weeks; QW, once weekly; T2DM, type 2 diabetes mellitus; ULN, upper limit of normal.

Metabolic Data: Benefits Maintained Over Time

Change From Baseline at Week 24 and Week 48



	Placebo Week 24 (n=42)	Placebo Week 48 (n=35)	30mg QW Week 24 (n=66)	30mg QW Week 48 (n=50)	44mg Q2W Week 24 (n=51)	44mg Q2W Week 48 (n=45)
HbA1c	-0.2	-0.5	-0.6	-0.7	-0.5	-0.4
Triglycerides	-3%	-5%	-27%	-21%	-10%	-5%
LDL-C	0%	-3%	-3%	-8%	-5%	-18%

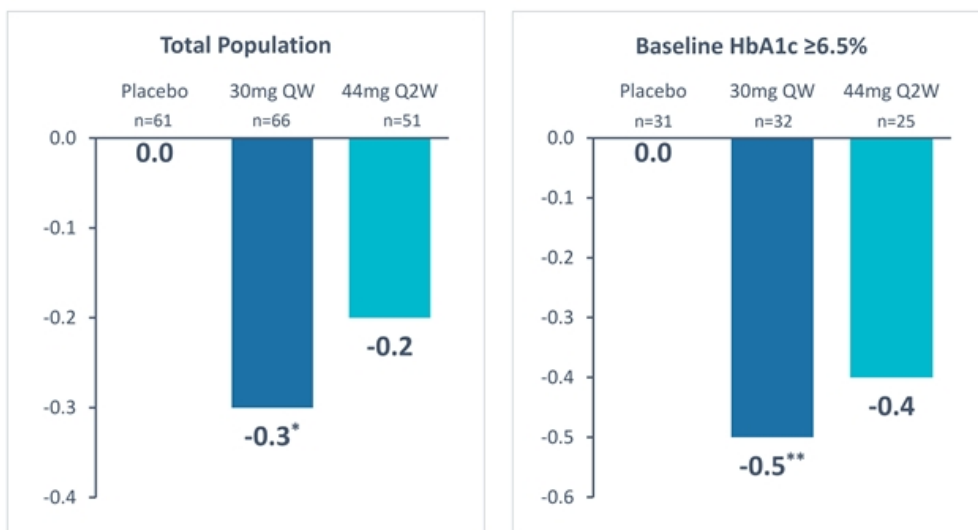


Full Analysis Set; preliminary data
 HbA1c LS mean change from baseline; TG and LDL-C median CFB
 HbA1c in patients with T2DM and baseline >7.0%

Pegozafermin Demonstrated Meaningful Reductions in HbA1c (ENLIVEN)



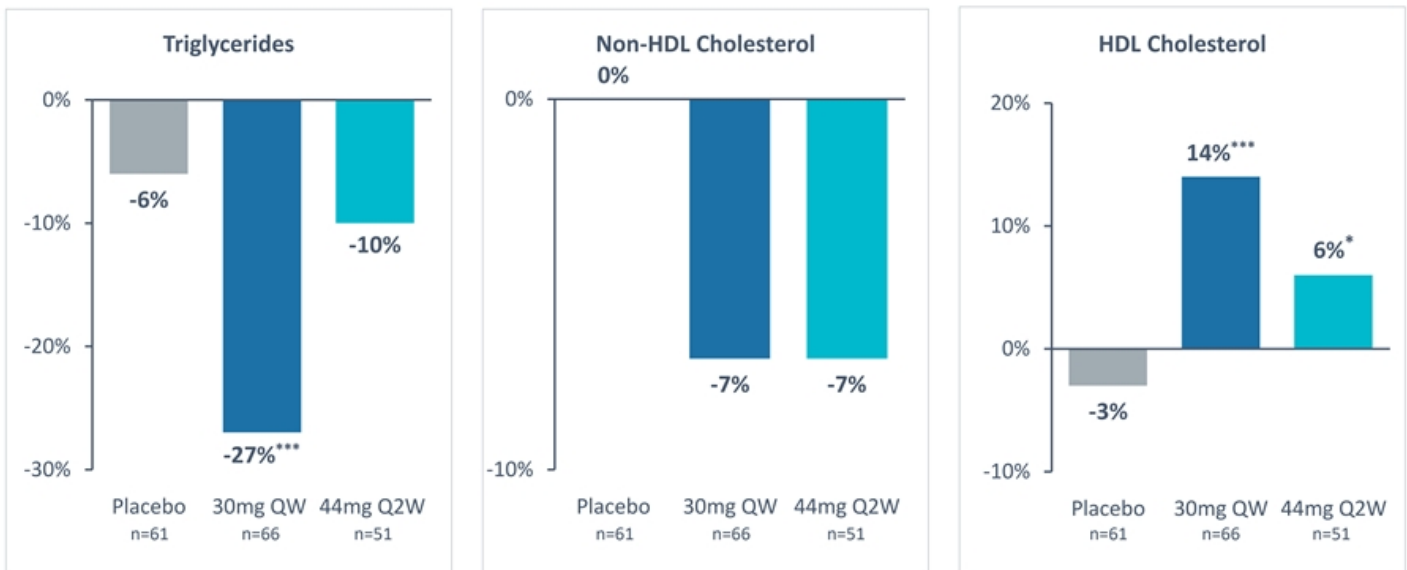
Change in HbA1c from Baseline at Week 24



89bio Source: Full Analysis Set for either overall population or FAS with baseline HbA1c ≥6.5%. Analysis via MMRM. *p<0.05, **p<0.01 versus placebo.

Pegozafermin Demonstrated Meaningful Changes in Serum Lipids (ENLIVEN)

Percent Change in Serum Lipids from Baseline at Week 24



Source: Full Analysis Set. Analysis via van Elteren Test for triglycerides (reported as median) and mixed model with repeated measure (MMRM). Patients with missing week 24 triglycerides are excluded from the non-parametric analysis.

Non-HDL-cholesterol and HDL Cholesterol (reported as LS means) with changes from baseline (absolute or %) as dependent variables.

*p<0.05, ***p<0.001 versus placebo.

Data from Cohort 7 Support Pegzofermin's Impact in F4 Patients



Histology data - Fibrosis improvement ≥ 1 stage without worsening of NASH ranged from 17% to 57%

Parameter	PGZ Treated Patients (n=6)
Liver Fibrosis	
VCTE (kPa)	-3.8
FAST (%)	-78.5%
Pro-C3 (%)	-25.5%
Liver Injury	
ALT (%)	-50.7%
AST (%)	-48.7%

Data presented as means for Cohort 7 F4 patients

Safety and tolerability were similar to what has been observed in the non-cirrhotic patient population

Comparative Profile of FGF21 Analogs in NASH – Safety/Tolerability



	Pegozafermin (PGZ)		Efruxifermin (EFX)	
	30mg QW	44mg Q2W	28mg	50mg
Tolerability and safety (key terms)				
Diarrhea	17%	9%	35%	33%
Nausea	21%	18%	25%	33%
Frequent bowel	-	-	20%	-
Increased appetite	13%	5%	18%	23%
Injection site erythema	14%	5%	15%	16%
Injection site bruising	-	-	15%	7%



Note: All data regarding third-party molecules on this slide are based on third-party studies and not our own. Conclusions on this slide are not based on head-to-head results

Comparative Profile of FGF21 Analogs - Histology and Liver Markers

	Pegzofermin (PGZ)		Efruxifermin (EFX)	
	30mg QW	44mg Q2W	28mg	50mg
Structure (molecular weight)	<ul style="list-style-type: none"> GlycoPEGylated FGF21 (40 kDa) Structurally different from other monovalent analogs 		Fc-fusion FGF21 (92 kDa)	
Potency against FGF receptors (EC50)¹	PGZ (rFGF21)		EFX (rFGF21)	
1c/2c/3c	0.3 (4.5)/1.1 (4.5)/1.2 (1.8)		0.3 (0.08)/0.7 (0.4)/1.9 (1.0)	
Efficacy (histology)				
Methods	<ul style="list-style-type: none"> Rigorous biopsy reading 3 separate independent reader (no bias); algorithm derived score 95% + alignment based on 2+ reader agreement 		2 independent readers with consensus based on discussion (no adjudication required)	
Fibrosis 1-point improvement				
Placebo adjusted percent	19%	20%	19%	20%
Relative risk	3.5	3.6	2.0	2.0
NASH Resolution				
Placebo adjusted percent	21%	26%	32%	61%
Relative risk	11.8	13.5	3.1	5.1
Key liver non-invasive markers				
Liver fat change baseline ²	-52%	-54%	-52%	-64%
VCTE kPa (chg baseline, placebo adjusted)	-3.7	-3.1	-1.9	-3.6
ProC3 (chg baseline, placebo adjusted)	-25%	-24%	-28%*	-33%*
ALT	-42%	-32%	-38%	-47%

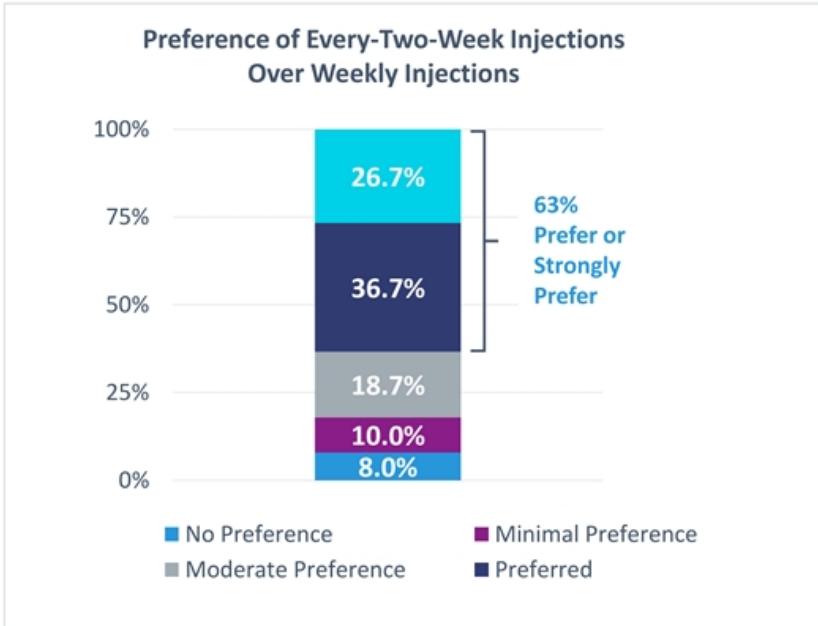


¹LG cells overexpressing β-klotho and either FGF receptor 1c, 2c, 3c via PERK functional assay. PGZ data is based on MRI-PDFF Analysis Set in patients with >10% liver fat at baseline

Note: All data regarding third-party molecules on this slide are based on third-party studies and not our own. Conclusions on this slide are not based on head-to-head results

*Calculated values

Over 60% of T2D Patients Prefer or Strongly Prefer Every-Two-Week Injections



- Every-two-week dosing provides opportunity for physicians to optimize therapy to patient preference
- Compliance is important in treatment for chronic, asymptomatic diseases