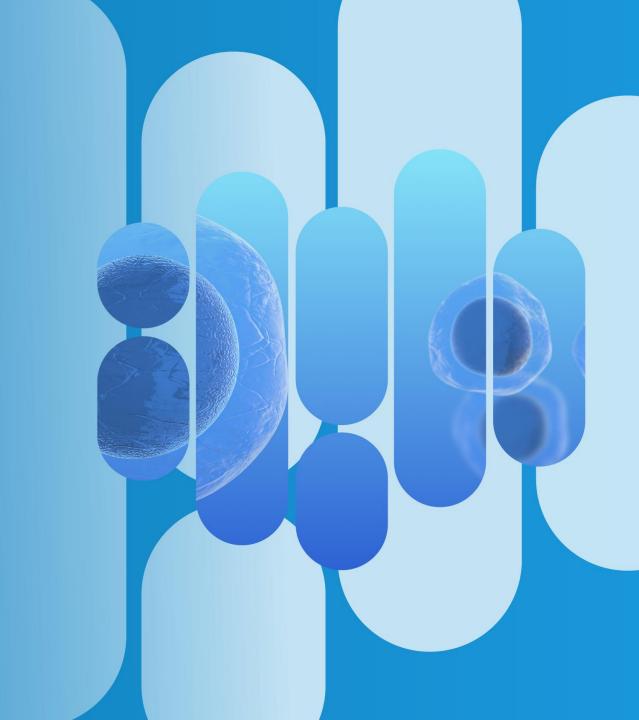
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Powerful Science Meaningful Medicines Changing Lives

Pegozafermin Phase 2 (ENTRIGUE)
Topline Results in Severe
Hypertriglyceridemia (SHTG)

Nasdaq: ETNB



Disclaimer

Cautionary Note Regarding Forward-Looking Statements

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, 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 ongoing clinical trials for pegozafermin, including the Phase 2 ENTRIGUE trial, the timing of anticipated milestones, 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. 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 and uncertainties, including: expectations regarding the timing and outcome of the Phase 2b ENLIVEN trial in NASH and Phase 2 ENTRIGUE trial in SHTG; expectations regarding the timing of topline data; our ability to execute on our strategy; positive results from a clinical study may not necessarily be predictive of the results of future or ongoing clinical studies; our substantial dependence on the success of our lead p

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.



Pegozafermin – Potential Important New Cardio-Metabolic Drug

ENTRIGUE results demonstrate compelling and differentiated profile in SHTG

- Significant impact on triglycerides, liver fat, and associated metabolic co-morbidities
- Favorable safety and tolerability profile
- Exceeds target product profile defined by literature, KOLs & treating physicians

SHTG represents a large potential opportunity given pegozafermin's profile

- High unmet needs for better therapeutic options to address broader metabolic comorbidities
- Approved therapies are sub-optimal resulting in large uncontrolled or untreated population

Results support advancing to Phase 3 – potential first FGF21 analog to market

- Potentially quicker and efficient regulatory path to approval in SHTG
- Phase 3 initiation expected in 1H23; topline results ~ 2 years from study start

ENTRIGUE results increase confidence in overall pegozafermin program - NASH ENLIVEN topline now expected in 1Q23



SHTG is a Serious Disease in Need of Better Treatment Options

Patients with SHTG have multiple co-morbidities and significant health risks

- Increased Cardiovascular (CV) Risk
 - Increased risk of CV disease, heart failure and ischemic stroke
 - Increased mortality in patients with CHD
- Increased risk of Acute Pancreatitis
- Increased prevalence of Diabetes

"Most patients with severe hypertriglyceridemia have multiple ASCVD risk factors and are at enhanced risk of developing atherosclerotic disease. This risk is conveyed by atherogenic VLDL plus other factors, such as obesity, metabolic syndrome, and hyperglycemia" [2018 AHA/ACC Guideline For Cholesterol Management]

Average patient in ENTRIGUE study was estimated to have a 23% risk of Major Cardiovascular Events (MACE) over 10 years (per ACC ASCVD risk estimator)

• Average patient: no prior CV event, 54 years old, male, white, BP 131/81, total cholesterol 240, HDL 28, LDL 89, diabetic, non-smoker, taking anti-hypertensive medication, no statins or aspirin. Individual risks may vary.



SHTG is a Large Underserved Market

High Prevalence Disease: ~4M patients in the United States

Existing therapies have limitations

- Fish Oils: Minimal to moderate TG reduction, LDL elevations (some), no liver benefits
- Fibrates: Moderate TG reduction, major increase in LDL, myopathies
- Statins (not approved for SHTG): Moderate TG reduction with high intensity regimen, other lipid benefits,
 potential liver and muscle toxicity

~50%* of diagnosed/treated patients are uncontrolled representing ~ 750,000 to 1,000,000 patients

Market needs a therapy that offers:

- More effective triglyceride reduction
- Improvement in other lipids that impact CV risk
- Improvement in liver fat and no worsening of liver function
- Improvement in glycemic control measures



Proposed Mechanisms of Action for Pegozafermin in SHTG

• Adipose tissue

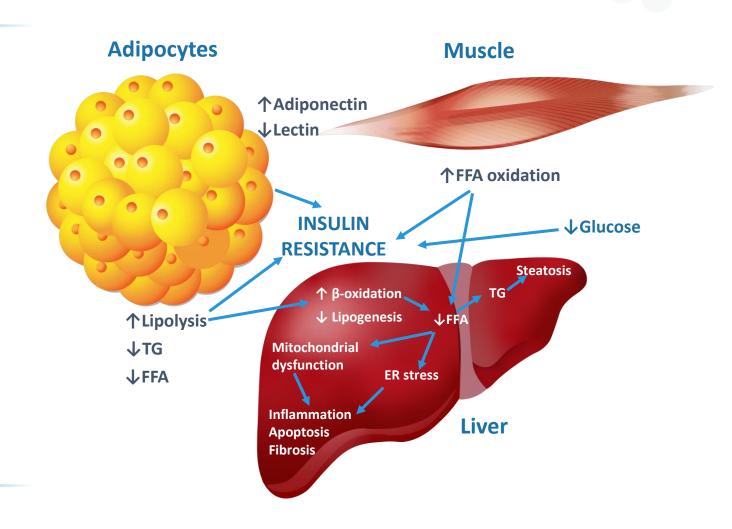
- Decrease lipogenesis and release of FFA
- Improve insulin resistance
- Increase TG uptake
- Increase adiponectin

Liver

- Increase β-oxidation
- Decrease de novo lipogenesis
- Decrease FFA / TG

Muscle

Increase FFA oxidation

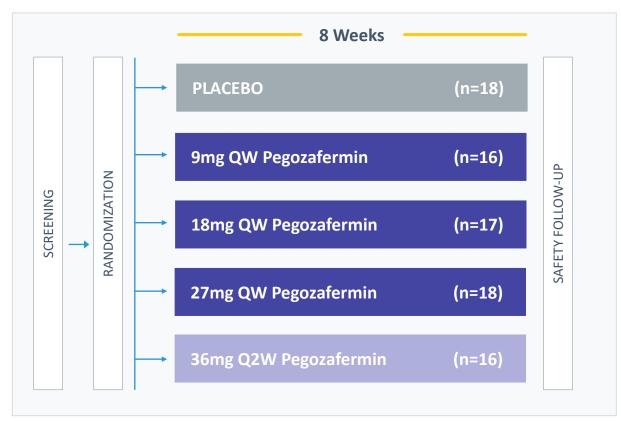


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ENTRIGUE Data



ENTRIGUE – Phase 2 SHTG Trial Design



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)

KEY INCLUSION CRITERIA

- TG ≥500 mg/dL and ≤2,000 mg/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



Baseline Characteristics Represents an Advanced Population at High Risk for CV Disease

Parameter Mean or %	Placebo (n=18)	PGZ Pooled (n=67)	PGZ 9mg QW (n=16)	PGZ 18mg QW (n=17)	PGZ 27mg QW (n=18)	PGZ 36mg Q2W (n=16)	Total (n=85)
Age (years)	57.5	52.7	54.6	49.2	53.9	53.1	53.7
Male (%)	66.7	77.6	68.8	82.4	72.2	87.5	75.3
Body Weight (kg)	98	99	100	97	99	99	99
Type 2 Diabetes (%)	61.1	47.8	56.3	35.3	55.6	43.8	50.6
TG (mg/dL)	720	736	722	709	680	840	733
Non-HDL-C (mg/dL)	220	209	216	203	203	215	211
HDL-C (mg/dL)	28	28	31	27	31	25	28
LDL-C (mg/dL)	88	89	92	88	97	80	89
Apo-B (mg/dL)	116	115	120	115	119	106	115
HbA1c ≥6.5% (%)	38.9	44.8	56.3	35.3	50.0	37.5	43.5
ALT (U/L)	29.1	33.9	36.3	36.9	33.0	29.2	32.8
Liver Fat Content (%) (n=24)	16.5 [n=6]	21.3 [n=18]	19.8 _[n=3]	18.0 [n=5]	22.4 [n=7]	25.5 _[n=3]	20.1 _[n=24]



Baseline Characteristics: Approximately 50% on Background Therapy Represents Real World Setting

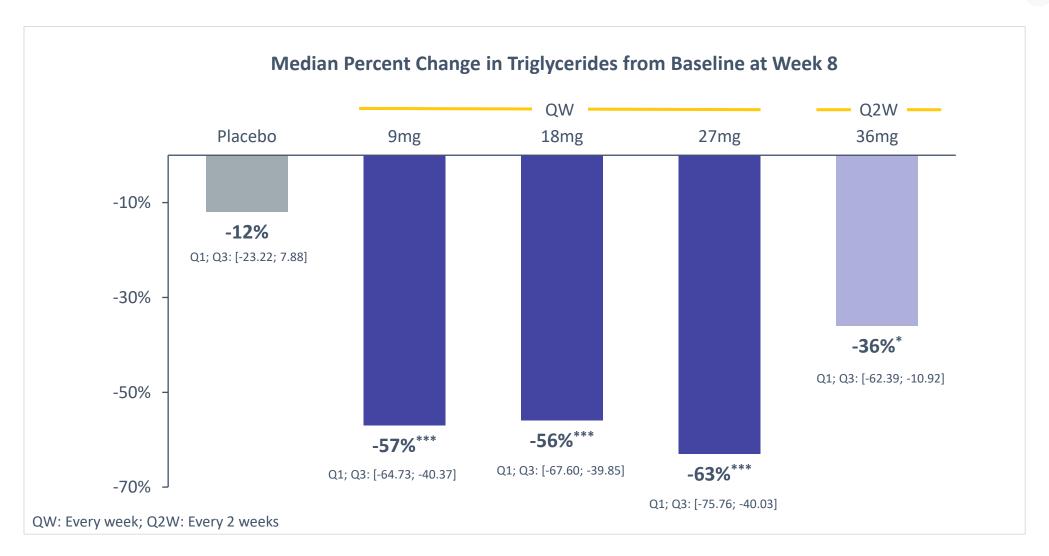
	Placebo (n=18)	PGZ Pooled (n=67)	PGZ 9mg QW (n=16)	PGZ 18mg QW (n=17)	PGZ 27mg QW (n=18)	PGZ 36mg Q2W (n=16)	Total (n=85)
Any background therapy	61%	54%	50%	53%	61%	50%	55%
Statins/statin combo	50%	43%	38%	53%	39%	44%	45%
Prescription fish oil	11%	15%	6%	12%	22%	19%	14%
Fibrates	17%	5%	0	0	17%	0	7 %
Other	6%	13%	13%	18%	11%	13%	12%

Patients may be on > 1 lipid-modifying therapy

Background therapy defined as concomitant lipid-modifying therapy



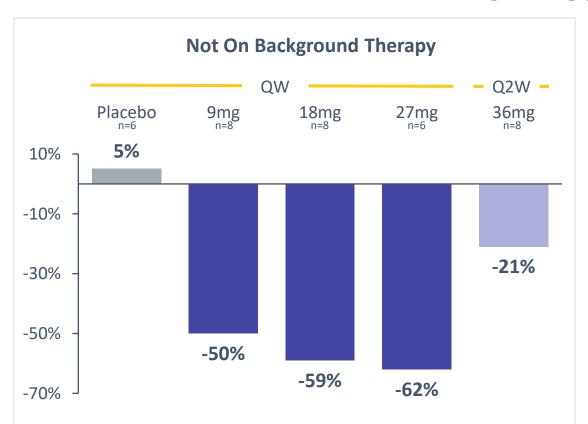
Pegozafermin Significantly Reduces Triglycerides across All Dose Groups Primary Endpoint

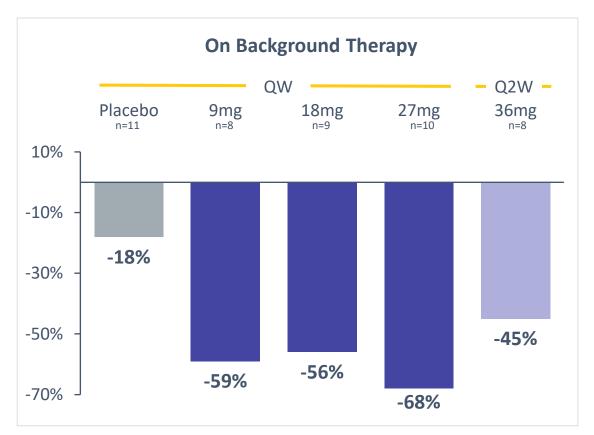




Pegozafermin Shows Significant Decrease in Triglycerides on Top of Background Therapy

Median Percent 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 Consistent and Significant Benefit in Triglyceride Reduction across All Key Subgroups

Median Percent Change in Triglycerides from Baseline at Week 8

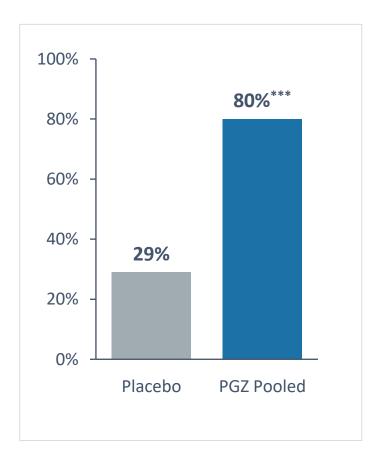
N=(placebo, PGZ pooled)	Placebo	PGZ pooled					
Baseline TG ≥750 mg/dL							
Yes (n=4,23)	-20%	-63%					
No (n=13,42)	0%	-52 %					
Type 2 Diabetes							
Yes (n=10,31)	-17%	-62%					
No (n=7,34)	-8%	-51%					
Region							
US (n=13,43)	-8%	-58%					
EU (n=4,22)	-23%	-57%					

Similar trends were observed in subgroup analyses based on other baseline characteristics

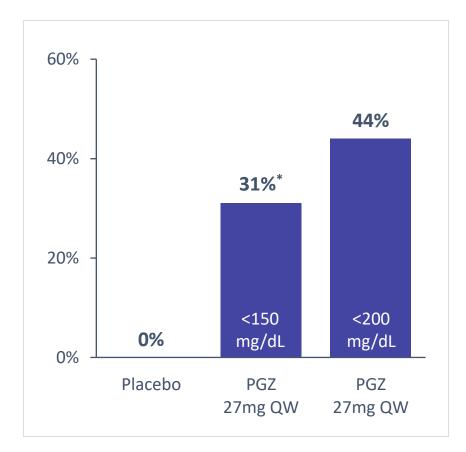


Pegozafermin Shows Significant Decrease in Triglycerides at Different Threshold Levels

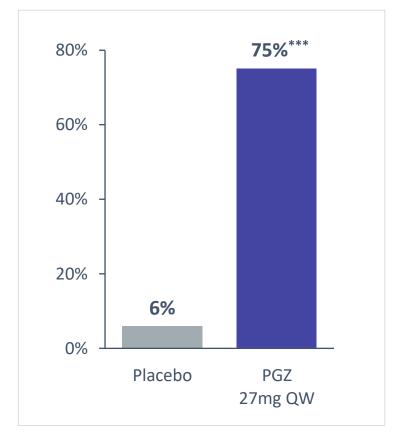
A. Responders (< 500 mg/dL)



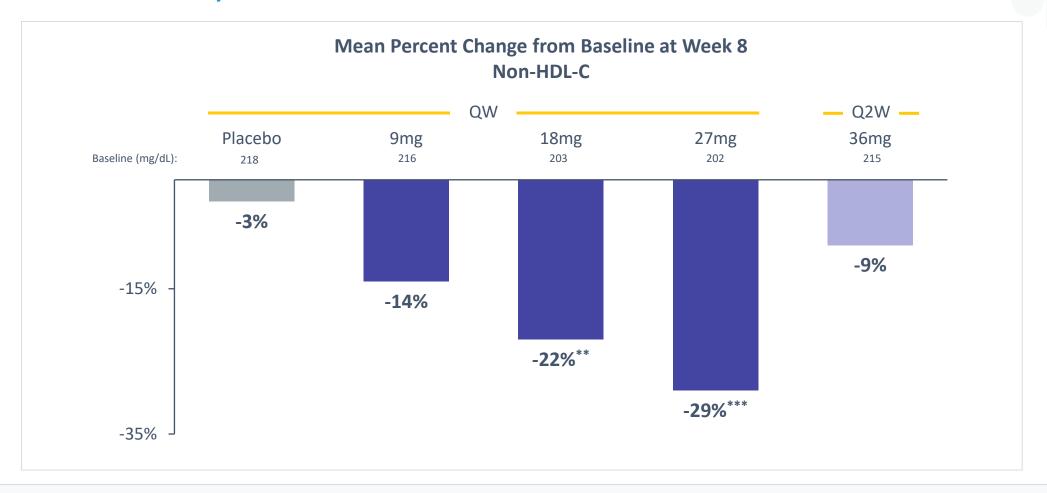
B. TG Normalization (<150mg/dL, <200mg/dL)



C. TG Reduction ≥50% from baseline



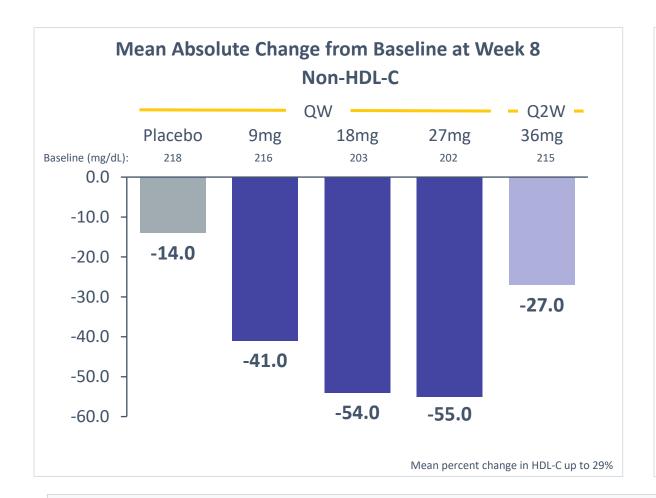
Pegozafermin Demonstrated Clinically Meaningful Improvements in Non-HDL-C – Key Marker of CV Risk

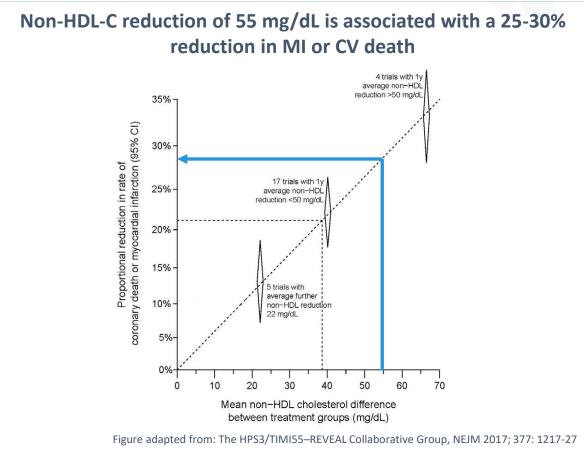


Non-HDL-C measures the cholesterol in atherogenic particles including LDL-C, IDL-C, and VLDL-C and is considered a better measure of CV risk in hypertriglyceridemia [‡]



Pegozafermin Demonstrated Reduction in Absolute Non-HDL-C Absolute Non-HDL-C Reduction is Associated with MACE Improvement

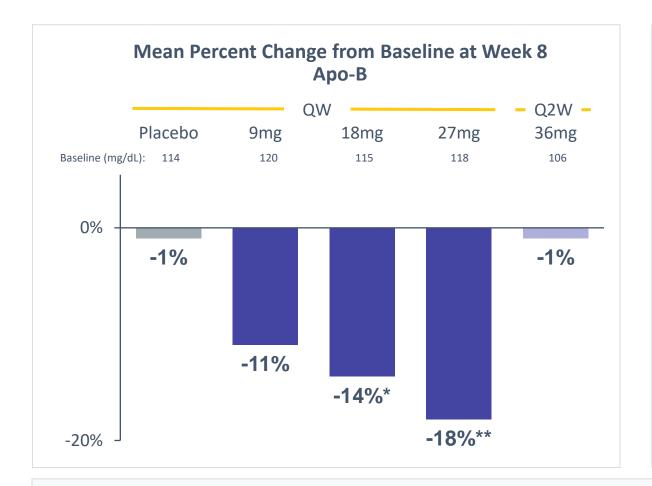


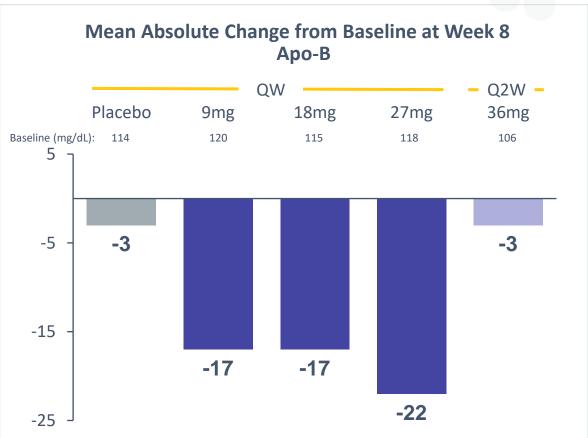


Non-HDL-C reduction of 55 mg/dL is associated with a 25-30% reduction in MI or CV death[†]



Pegozafermin Demonstrated Clinically Meaningful Improvements in Apo-B – Key Marker of CV Risk

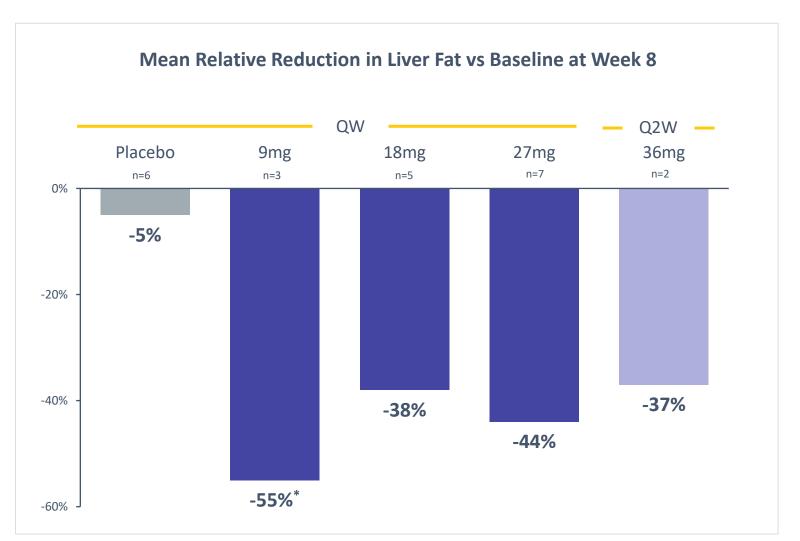




Apo-B is a critical structural protein in atherogenic lipoproteins including LDL-C and is a direct measure of number of atherogenic lipoprotein particles. Apo-B has been proposed as a more accurate indicator of CV risk than LDL-C.¹



Pegozafermin Demonstrated Significant Reduction in Liver Fat Liver Fat Is an Important Potentiator of CV Risk



HIGH RESPONDER RATES

- ≥ 30% Reduction in liver fat:
 88% vs 0% in placebo
- ≥ 50% Reduction in liver fat:
 41% vs 0% in placebo
- Normalized liver fat: 24% vs 0% in placebo

Pegozafermin (n=17) and Placebo (n=6)

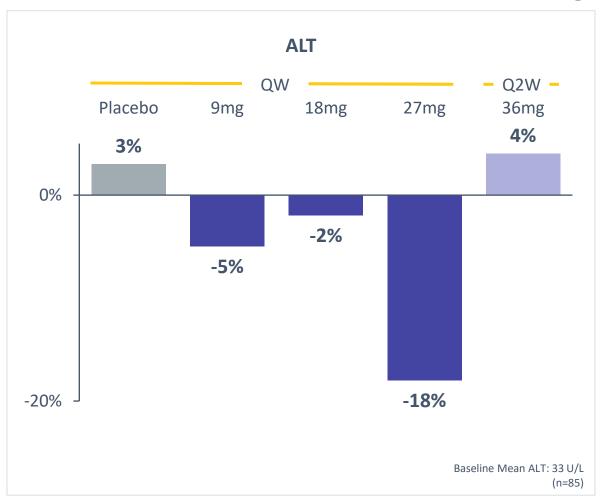
Post-hoc analysis of patients with follow-up MRI-PDFF \leq 21 days from date of last dose (n=14) resulted in 29% of patient with normalized liver fat and 100% and 50% of patients with mean relative reductions of \geq 30% and \geq 50% from baseline, respectively.

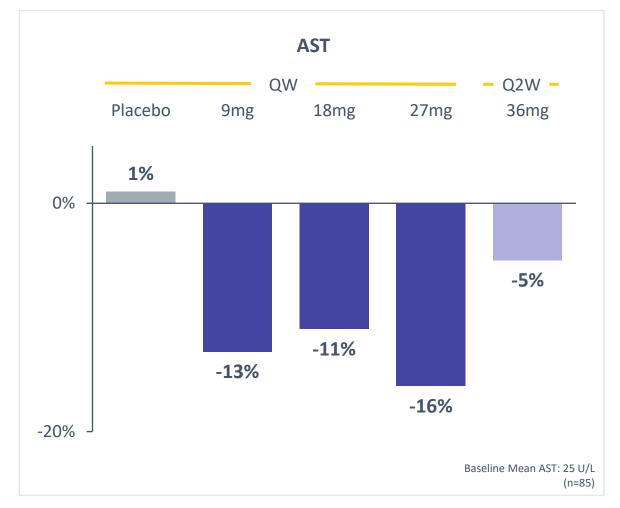


Post-hoc analysis of patients with follow-up MRI-PDFF ≤21 days from date of last dose in 27mg QW cohort (n=5) demonstrated a 63% mean relative reduction from baseline.

Pegozafermin Improved Liver Function Despite Normal Levels at Baseline

Mean Percent Change from Baseline at Week 8

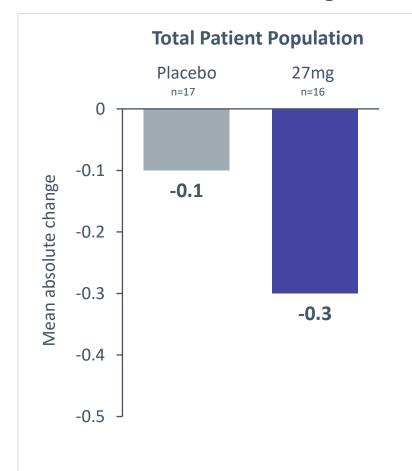




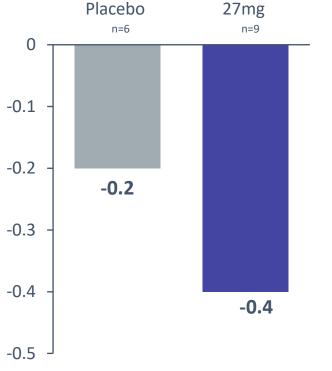
19

Pegozafermin Demonstrated Improvement on HbA1c that May Increase with Longer Treatment

Absolute Change in HbA1c at Week 8 in ENTRIGUE



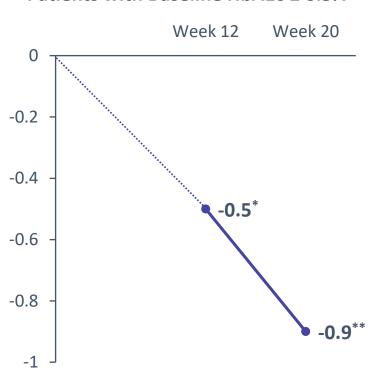
Patients with Baseline HbA1c ≥ 6.5%



HbA1c: Mean Baseline 27 mg QW: 7.48%; Week 8: 7.08%

Absolute change in HbA1c in 20-week NASH study





Study BIO89-100-002; Cohort 7: n=10 at PGZ 27 mg QW

HbA1c: Baseline: 7.3%; Week 20: 6.4%

Patients with baseline HbA1c \geq 6.5% were on an average of 2 anti-diabetic medications.

*p<0.05; **p<0.01; ***p<0.001. p value for change from baseline based on MMRM analysis

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Full analysis set; MMRM analysis

Pegozafermin Was Well Tolerated Across Doses Safety profile consistent with prior studies

Low Incidence of Treatment-Related AEs in ≥ 7.5% of Pooled Pegozafermin Group

Preferred Term	Placebo (n=18)	PGZ Pooled (n=67)	PGZ 9mg QW (n=12)	PGZ 18mg QW (n=21)	PGZ 27mg QW (n=18)	PGZ 36mg Q2W (n=16)
Nausea	0	10%	0%	5%	22%	13%
Diarrhea	0	9%	17%	5%	17%	13%
Injection site reaction	0	9%	8%	10%	6%	13%

All AEs were Grade 1 or 2; No Grade 3 or higher TEAEs reported. No tremor or transaminase elevation AEs reported.

	Placebo (n=18)	PGZ Pooled (n=67)	PGZ 9mg QW (n=12)	PGZ 18mg QW (n=21)	PGZ 27mg QW (n=18)	PGZ 36mg Q2W (n=16)
Serious adverse event (unrelated)	0	1*	0	0	1	0
Treatment emergent discontinuations (related/unrelated)	0	2^/2	0	0	2^/2	0

^{*}Unrelated SAE of Grade 2 hypertension; patient withdrew

[^]Grade 2 abdominal cramps (1) and Grade 2 nausea/vomiting (1)



Pegozafermin – Unique and Differentiated Profile in SHTG

Efficacy

- Significant reduction in triglycerides across all dose groups up to 63% (27 mg QW)
 - Results consistent in patients with or without background therapy
 - Result consistent across various subgroups (high/low baseline TGs, Type 2 diabetes status)
 - Significant TG normalization rates
- Significant reduction in liver fat and improvements in liver enzymes and glycemic control markers
- Potent reduction in atherogenic lipids (Non HDL-C) and apolipoproteins (Apo B)

Safety/Tolerability

 Well tolerated at all doses with low incidence of treatment related adverse events (all Grade 1 or 2)



Proposed Clinical Development

Regulatory

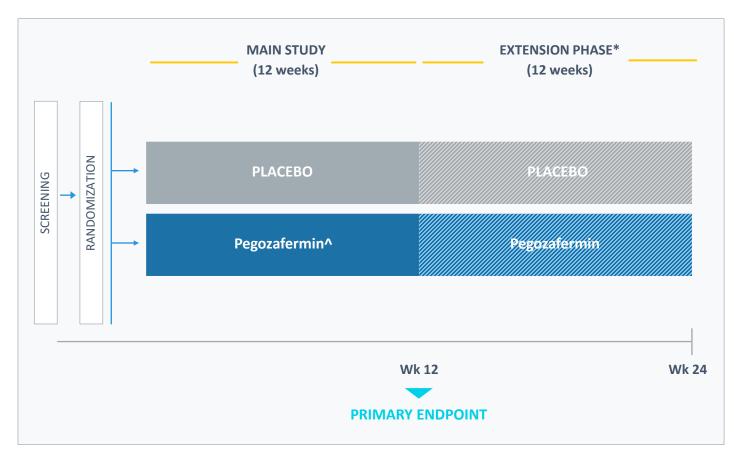
- Seek full approval using endpoint of triglyceride lowering (based on FDA precedent)
- Propose study duration and study size based on prior precedents for approved drugs
- Discuss safety database requirements for approval
- End of Phase 2 meeting planned for 2H22

Clinical Development

- Conduct single pivotal Phase 3 trial in SHTG
 - Trial initiation expected in 1H23; Topline results expected in 1H25
- Consider additional studies to meet safety database requirements per FDA discussions
 - Potential trial(s) in other hypertriglyceridemia patient populations
 - Leverage safety data from NASH studies



Proposed Phase 3 SHTG Trial Design



^Dose(s) to be decided



- TG ≥500 mg/dL
- Background therapy of statins and/or prescription fish oil and/or fibrates OR not on any background therapy

KEY ENDPOINTS

- Reduction in TG from baseline (primary)
- Liver fat (MRI-PDFF)
- Other lipids and metabolic markers

SAMPLE SIZE

- Approximately 300 patients
- >90% power for primary endpoint





Deepak L. Bhatt, MD, MPH, FACC, FAHA, FSCAI, FESC

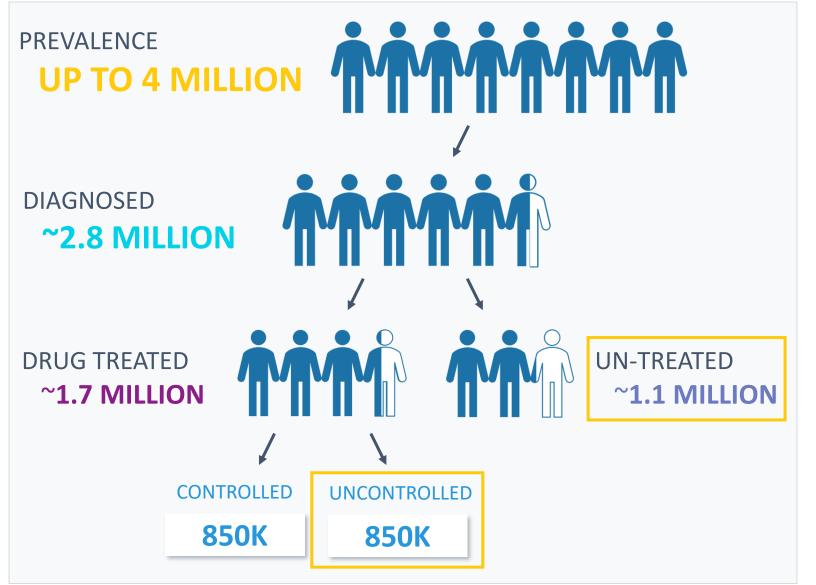
 Dr. Deepak L. Bhatt is Executive Director of Interventional Cardiovascular Programs at Brigham and Women's Health and Professor of Medicine at Harvard Medical School.

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SHTG Represents a Significant Opportunity for Pegozafermin



SHTG Represents a Large Population with High Unmet Needs



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 has Differentiated Profile Compared with Other TG-Lowering Drugs

IN DEVELOPMENT

APPROVED

	Pegozafermin	APOC3 Fibrates	APOC2 Fibratos	Prescription	Statins	
	Potential		Vascepa	Lovaza		
Triglyceride reduction	///	///	//	✓	//	√ √
Liver fat reduction	✓	_	Worsens liver fat	_	_	_
Insulin sensitizing	✓	_	_	_	_	_
Cholesterol lowering	✓ (non-HDL-C)	✓ (non-HDL-C)	Worsens LDL-C	_	Worsens LDL-C	✓
Apo-B lowering	√	✓	_	✓	_	_
ALT lowering	✓	Transaminase elevations observed	Monitor ALT		May require ALT monitoring	Monitor ALT

For triglyceride reduction: $\sqrt{\checkmark}$ = $\geq 60\%$, $\sqrt{\checkmark}$ = 31%-59%, $\sqrt{}$ = $\leq 30\%$





Pegozafermin Profile Represents Substantial Potential in SHTG (Quantitative Market Research Results)

Product profile testing

Profile tested: 30% TG reduction plus 1 metabolic benefit (lower than ENTRIGUE data); audience: 150 physicians in 2020

MARKET SHARE: 50%

Conjoint analysis

Profile tested: ENTRIGUE data; audience: 199 physicians in 2022

MARKET SHARE*	ALL PATIENTS	PATIENTS WITH FATTY LIVER
1st line	35%	43%
2nd line	66%	76%

Analyst consensus estimate of ~\$1.0B in peak sales in the US if approved



Corporate Highlights

Pegozafermin – potential important new cardio-metabolic drug; balanced effect on multiple key endpoints

- Impacts a broad spectrum of cardio and metabolic endpoints
- Robust data in 2 indications with a favorable safety and tolerability profile
- Potential first-to-market FGF21 analog

Severe Hypertriglyceridemia (SHTG) – Ph. 3 initiation planned in 1H23

- Highly differentiated based on Phase 2 success across multiple endpoints
- Significant opportunity given large, under-served market with limited competition
- Established regulatory pathway allows efficient clinical development

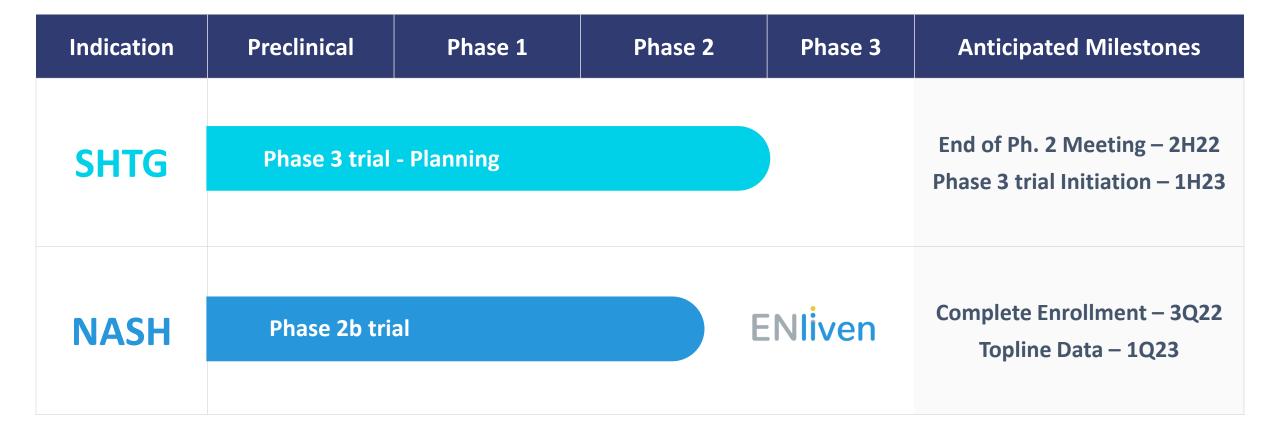
Nonalcoholic Steatohepatitis (NASH) – Ph. 2b enrollment completion in 3Q22; data expected 1Q23

- FGF21 offers greatest promise in this category addresses multiple facets of the disease
- Pegozafermin has demonstrated compelling results in clinic

Strong cash position with experienced team

- \$126.1 million cash* as of March 31, 2022; cash runway expected to extend into 2H23
- Track record of developing and commercializing successful drugs and business development at other companies

Plan To Advance Pegozafermin in Clinical Development



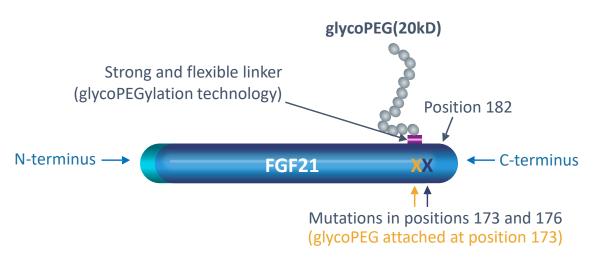


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Appendix



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



- Proprietary glycoPEGylation technology with site-specific mutations
- 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



C-terminus

N-terminus

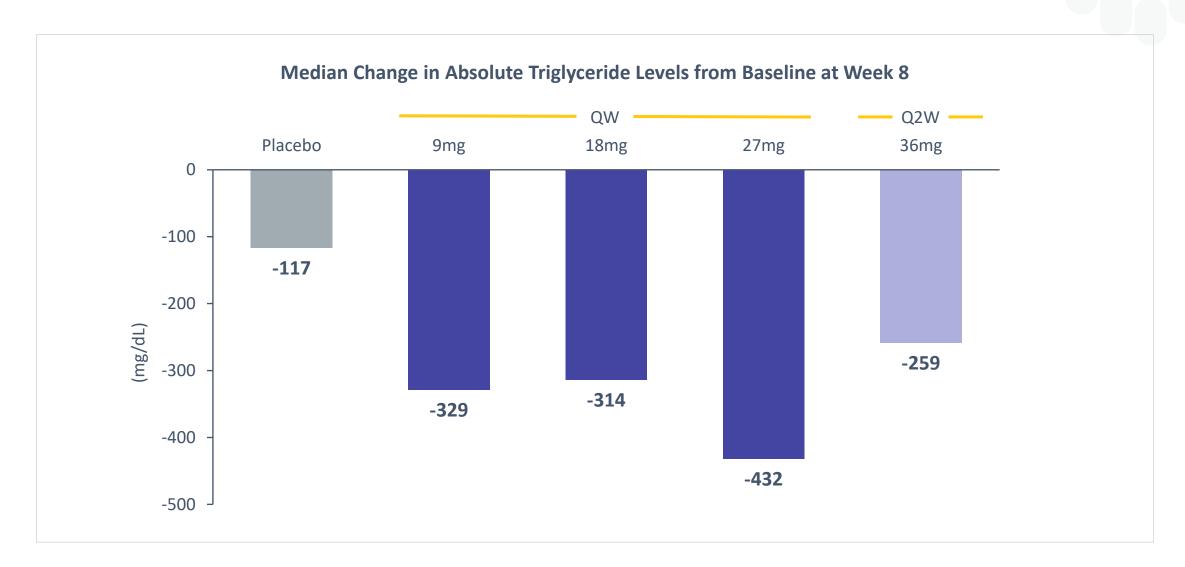
β-Klotho

FGFR

Signal transduction
Functional response

^{*} Composition of matter through 2038

Pegozafermin Significantly Reduces Triglycerides across All Dose Groups

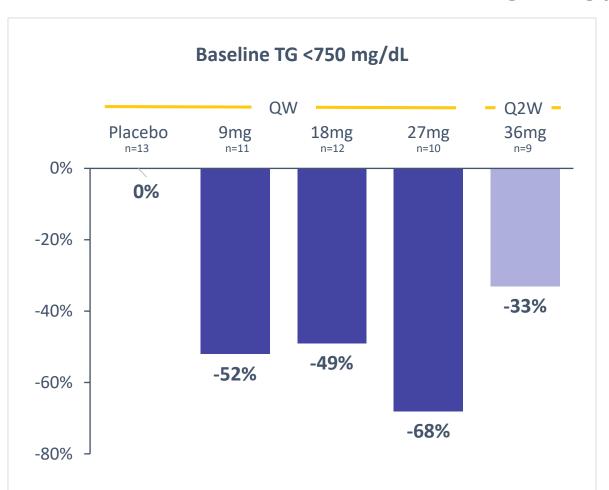


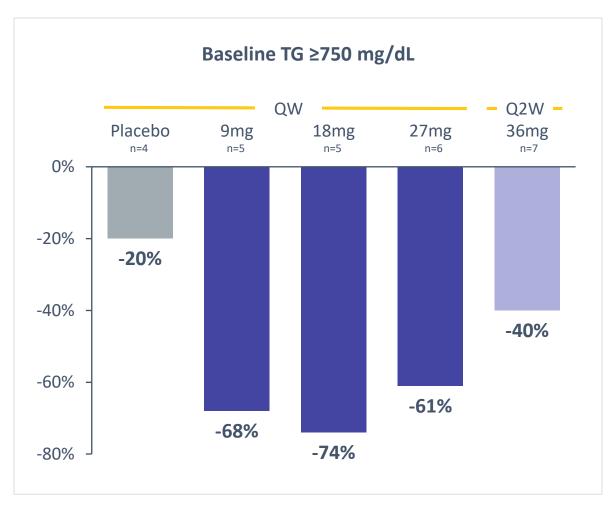


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Pegozafermin Demonstrated Significant Decrease in Triglycerides Regardless of Baseline TG Level Category

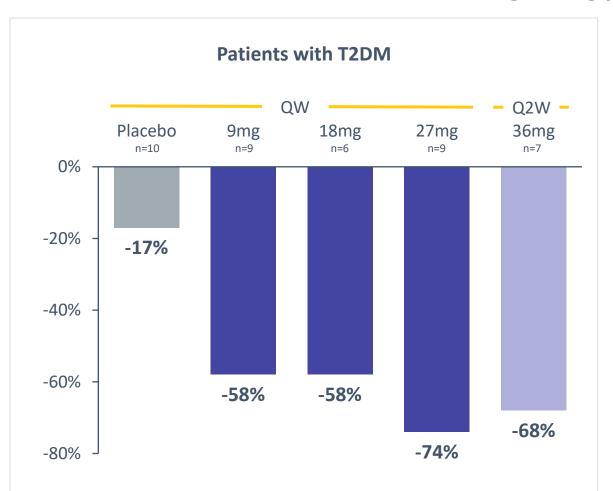
Median Percent Change in Triglycerides from Baseline at Week 8

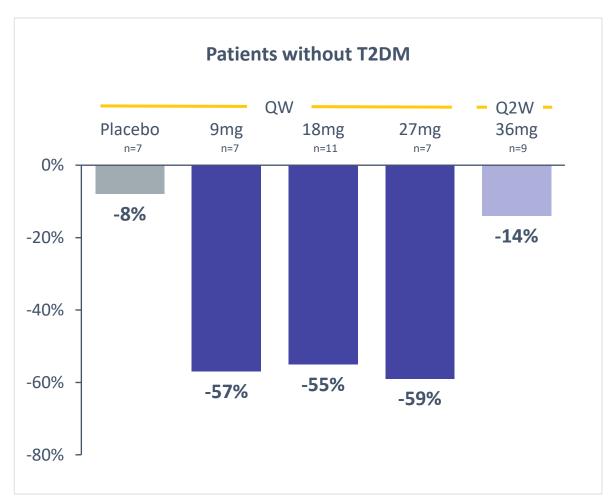




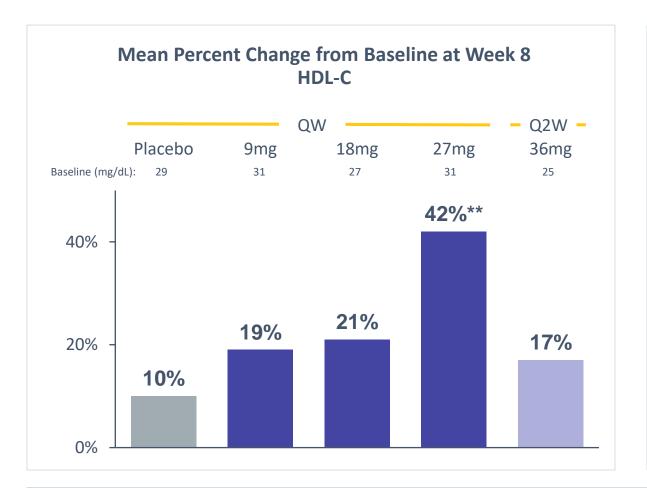
Pegozafermin Demonstrated Significant Decrease in Triglycerides Regardless of Diabetes Status

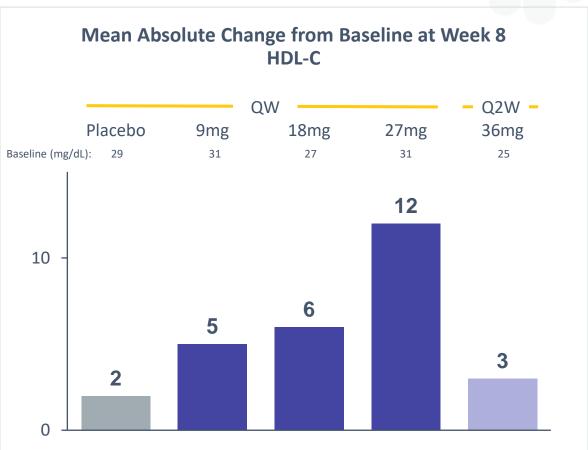
Median Percent Change in Triglycerides from Baseline at Week 8





Pegozafermin Demonstrated Clinically Meaningful Improvements in HDL-C

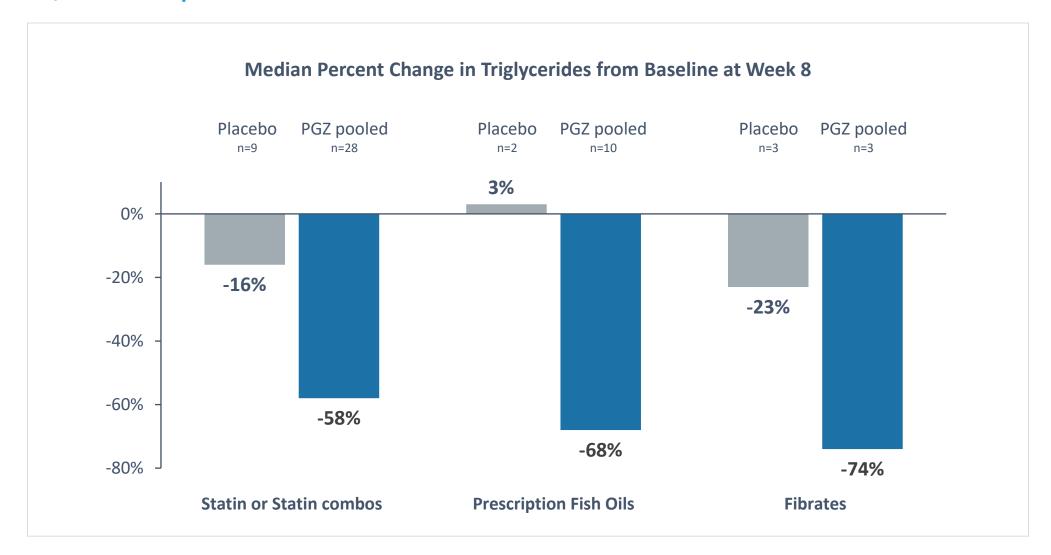




LDL-C mean % change from baseline similar between placebo and pegozafermin

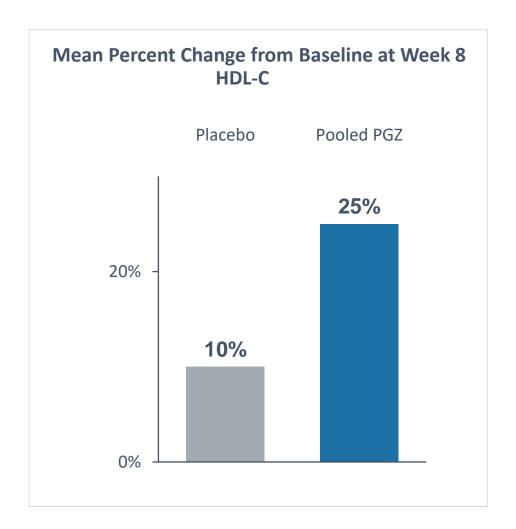


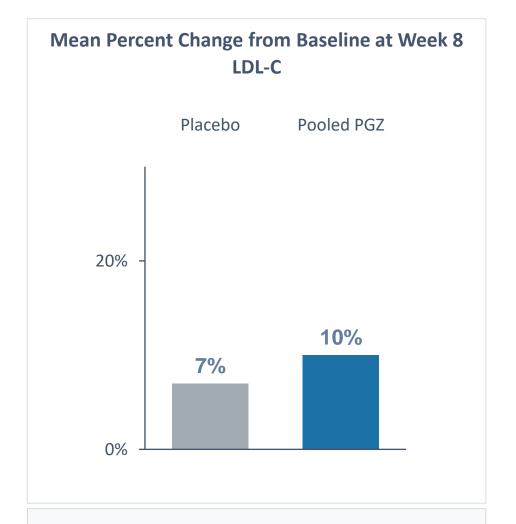
Pegozafermin Shows Significant Decrease in Triglycerides on Top of Statins, Prescription Fish Oils and Fibrates





Pegozafermin Demonstrated Clinically Meaningful Improvements in HDL-C and No Change in LDL-C vs. Placebo





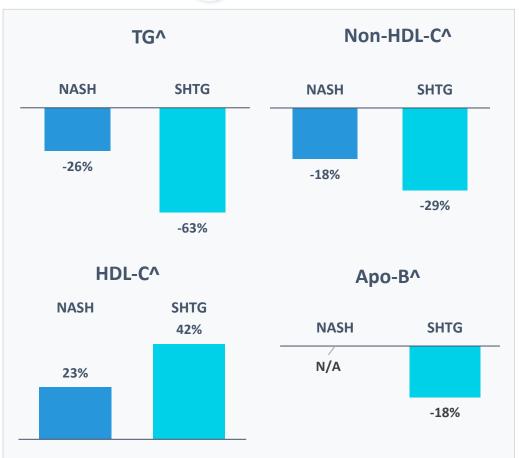


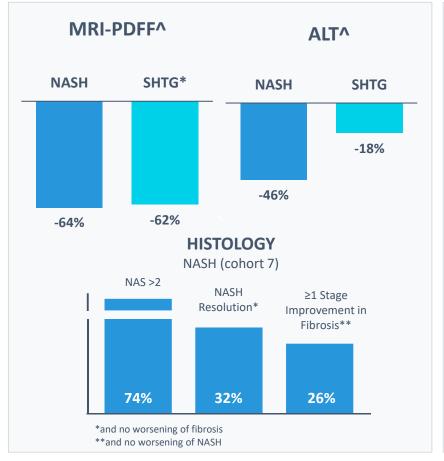
Pegozafermin 27mg QW Showed Consistent and Robust Effects in Two Indications (SHTG Patients at 8 weeks and NASH Patients at 20 weeks)

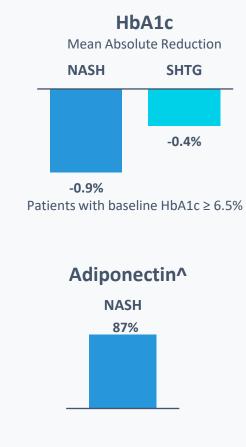












[^]Mean change from baseline; TG data for SHTG is presented as median

^{*}Post-hoc analysis of patients with follow-up MRI-PDFF ≤21 days from date of last dose (n=20). Analysis of all patients with follow-up MRI-PDFF (n=23) shows pooled PGZ demonstrated -43% relative reduction from baseline.

Target Product Profile Criteria for a New Therapy (Physician and KOL Research Completed by 89bio Before ENTRIGUE Data Readout)

Triglyceride efficacy

- 30% as add-on therapy (50% is upside case)
- 30% achieve TG <500 mg (50% is upside case)

Cardiometabolic benefits offer added value

- Liver Fat reduction:
 - 40% reduction from baseline
- HbA1c:
 - 0.5% to 0.8% reduction in patients with T2DM
- Lipid changes:
 - Non-HDL-C reduced by 25%
 - LDL and HDL not changed (improvements is upside case)

Pegozafermin Profile in ENTRIGUE Significantly Exceeded Target Levels



Extensive Market Research Supports Pegozafermin Promise in SHTG

KOL Experts & Physicians – Market Dynamics

- Lack of good treatment options in 2nd and 3rd line setting highest unmet need
- Triglyceride management is critical given CV and acute pancreatitis risk; however, often overlooked given limitations of current therapies

KOL Experts & Physicians – Pegozafermin profile is unique and compelling

- Target patient
 - Patient with uncontrolled TGs despite drug therapy or past episode of acute pancreatitis
 - Patient with history of cardiovascular risk factors
 - Patients with background metabolic syndrome symptoms
- Ideal profile reduces TG to <500 mg/dL and reduces liver fat
 - Glycemic control and other lipid benefits are additive
- Pegozafermin data exceeds threshold for adoption: 30% reduction in triglycerides
 - >50% reduction in triglycerides viewed as "excellent"
 - Metabolic benefits make it a preferred option for patients with Fatty Liver Disease and T2DM



Extensive Market Research Supports Pegozafermin Promise in SHTG

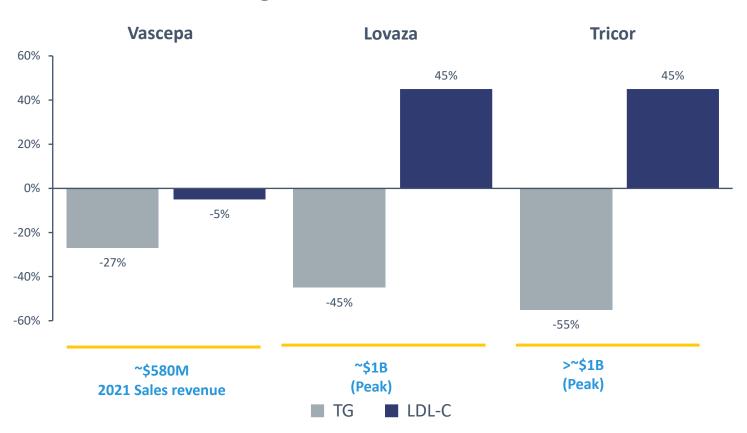
Payers – Managed Care Directors and PBMs

- Pegozafermin has potential to gain broad coverage based on approved indication; market is not actively managed
- Data supportive of premium pricing in 2nd line setting (threshold 30% reduction in TG)
- We believe that majority of plans would place pegozafermin on tier with a patient co-pay ≤\$60/month



Current Therapies Have Had Commercial Success Despite Less than Ideal Profiles

Changes from baseline



SAFETY / TOLERABILITY

FISH	OILS	FIBRATES
Vascepa (EPA)	Lovaza (EPA+DHA)	Tricor
	ng bleeding me	Myopathy, Creatinine increases, DDI

Lipitor decreases TG by 39% (low dose) and 52% (high dose). Level of sales for hypertriglyceridemia are unknown.

