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KOL Webinar on Metabolic Dysfunction-Associated Steatohepatitis (MASH)

Pegozafermin's Anti-Fibrotic and Metabolic Benefits for the Treatment of MASH

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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.

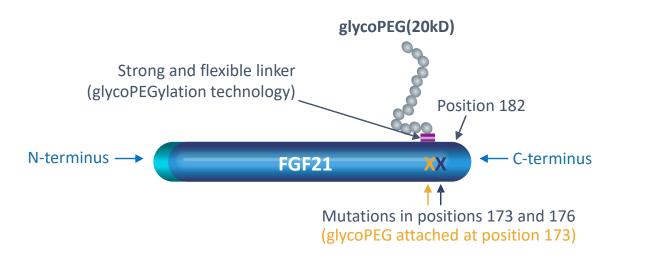
This presentation discusses product candidates that are under preclinical or clinical evaluation and that have not yet been approved for marketing by the U.S. Food and Drug Administration or any other regulatory authority. Until finalized in a clinical study report, clinical trial data presented herein 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.

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Today's Agenda

Introduction to Pegozafermin	Rohan Palekar, CEO
Non-cirrhotic (F2-F3) advanced MASH	Arun J. Sanyal, MBBS, MD
Compensated cirrhotic (F4) MASH	Arun J. Sanyal, MBBS, MD
Overview of ENLIGHTEN-Cirrhosis Trial	Hank Mansbach, MD, CMO
Pegozafermin's Commercial Opportunity	Rohan Palekar, CEO
Q&A	

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



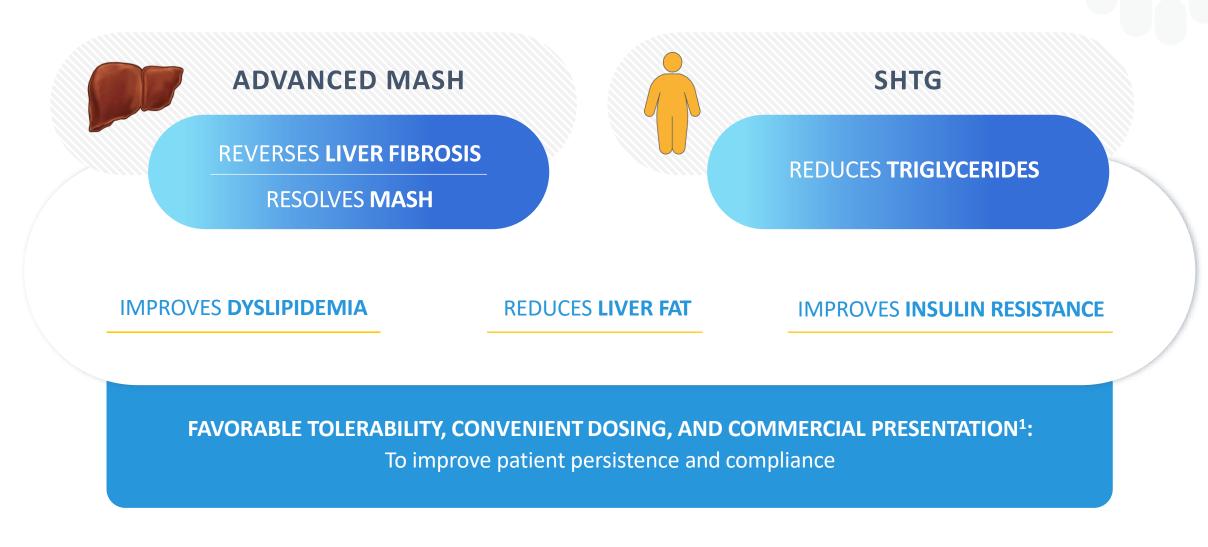
	FGF21	Pegozafermin
RECEPTOR	EC ₅₀ (nM)	EC ₅₀ (nM)
RECEPTOR	Mean ± S.D.	Mean ± S.D.
KLB	nd	nd
KLB/FGFR1	4.5 ± 1.0	0.3 ± 0.07
KLB/FGFR2	4.5 ± 0.9	1.1 ± 0.4
KLB/FGFR3	1.8 ± 0.3	1.2 ± 0.4
KLB/FGFR4 nd – not determined; rhFGF19	nd	nd

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
- Composition of Matter patent expiring in 2038



Pegozafermin Offers Potential Best-in-Class Therapeutic





Pegozafermin Could Offer an Important New Treatment Option with Significant Market Opportunities in MASH and SHTG

	MASH ADVANCED FIBROSIS PATIENTS	SHTG SECOND-LINE THERAPY	
CLINICAL	 Robust anti-fibrotic benefit Additive benefits to GLP-1 therapies 	 Robust TG reduction on top of standard of care Substantially de-risked Phase 3 study 	
COMMERCIAL	 Large market will support multiple MOAs Cirrhotic patient market offers unique opportunity 	 Large refractory market ~1M patients Potential best-in-category profile based on metabolic, lipid, and tolerability profile 	
BUSINESS	 Development and commercial synergies across program Three shots on goal provides diversification 		

89bio Note: Based on clinical data and current profile for pegozafermin and other competitors

Advancing Pegozafermin in Clinical Development

INDICATION	TRIAL	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3
MASH	ENlighten fibrosis	Phase 3 trial in F2	/F3: Histology & Ou	itcomes – Ongoing	
Breakthrough Therapy & PRIME designation	ENlighten cirrhosis	Phase 3 trial in F4	I: Histology & Outco	omes – Initiated	
SHTG	ENtrust	Phase 3 trial – To	pline data in 2025		

Speaker Introduction



Arun J. Sanyal, MBBS, M.D.

Director of the Stravitz-Sanyal Institute for Liver Disease and Metabolic Health, Virginia Commonwealth University

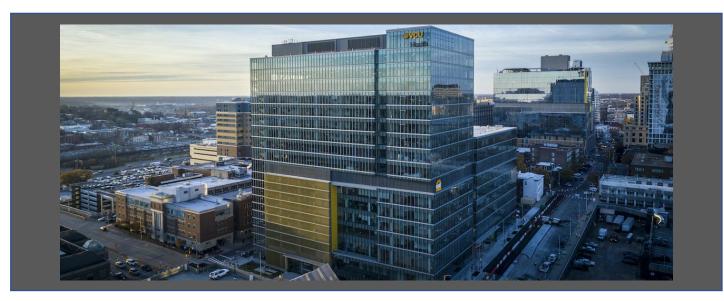
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Treatment Considerations in Non-cirrhotic (F2-F3) Advanced Fibrosis MASH









Arun J. Sanyal MBBS MD

Z Reno Vlahcevic Professor of Medicine

Director, The Stravitz-Sanyal Institute for Liver Disease and Metabolic Health

VCU and VCU School of Medicine



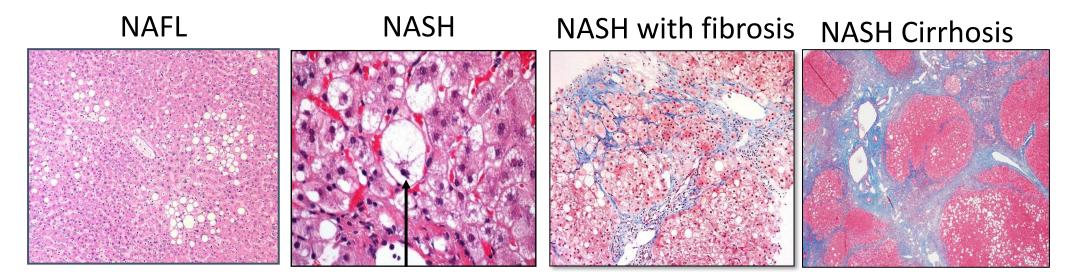
Disclosures

I disclose the following financial relationship(s) with a commercial interest:

- Ownership interests: Durect, Tiziana, Genfit, Exhalenz, Northsea, Rivus, Inversago
- Consultant: Histoindex, Path AI, Pharmanest, Biocellvia,
- Consultant: 89Bio, Gilead, Intercept, Novartis, Novo Nordisk, Inventiva, Merck, Pfizer, Boehringer Ingelhiem, Bristol Myers Squibb, Eli Lilly, Genentech, Amgen, Alnylam, Regeneron, Thera Technologies, Madrigal, Salix, Malinckrodt, Gatehouse, Rivus, Siemens, Lipocine, Astra Zeneca, Akero, Foresite, Mitopower, Takeda
- Grant support to school: Gilead, Intercept, Novartis, Novo Nordisk, Inventiva, Eli Lilly, Genentech, Boehringer Ingelhiem, Bristol Myers Squibb



MASLD*—a progressive disease as described by pathologists

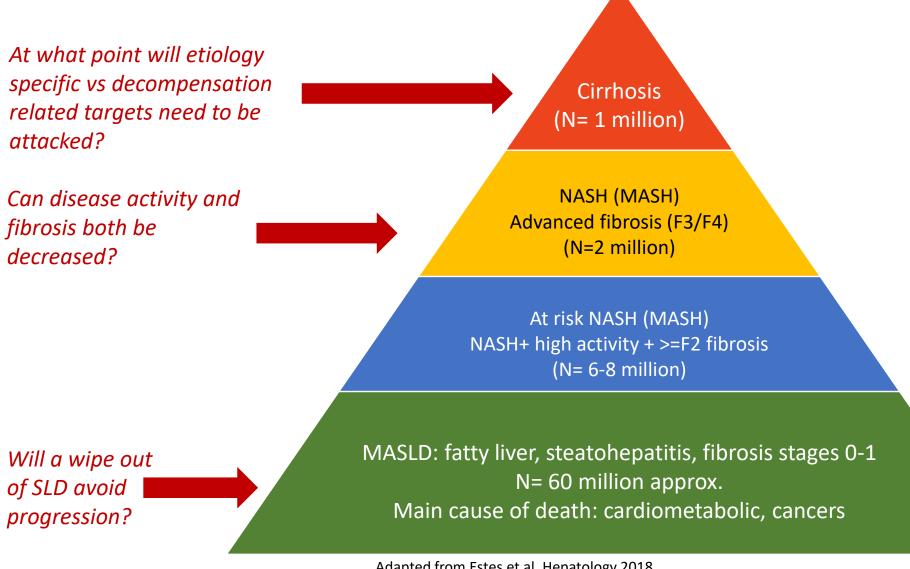


Hepatocellular ballooning

*In 2023, based on a multistakeholder consensus effort, the nomenclature for NAFLD and NASH were changed to MASLD and MASH. Rinella et al. *Hepatology* <u>78(6):p 1966-1986, December 2023.</u>

Sanyal AJ- personal collection

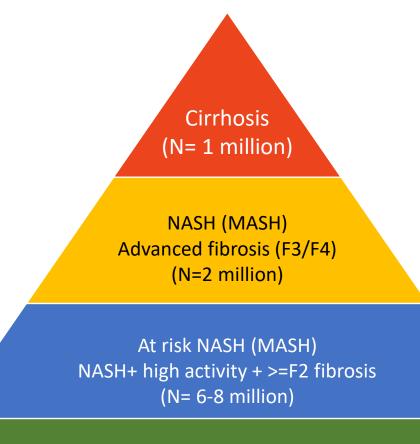
The MASLD pyramid—thinking through the floors



SLD = Steatotic Liver Disease

Adapted from Estes et al, Hepatology 2018

The MASLD pyramid—thinking through the floors



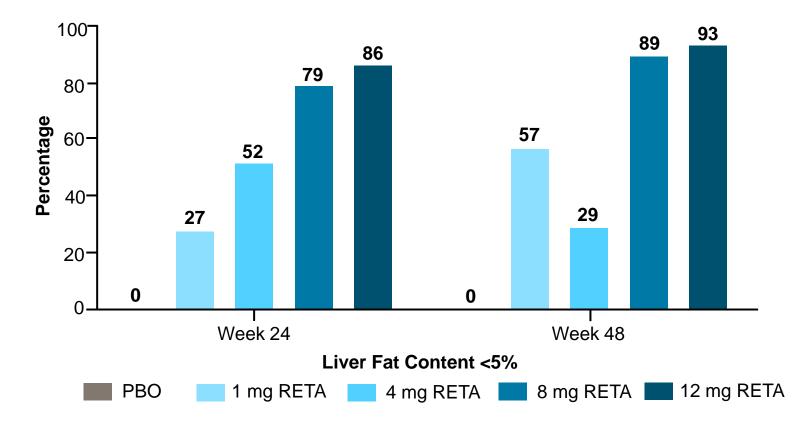
Will a wipe out of SLD avoid progression? MASLD: fatty liver, steatohepatitis, fibrosis stages 0-1 N= 60 million approx. Main cause of death: cardiometabolic, cancers

Adapted from Estes et al, Hepatology 2018

SLD = Steatotic Liver Disease

It is logical to hope that clearance of early stage MASLD with GLP-1 based therapies will stop injury-inflammation-fibrosis progressionbut need data to establish this as a construct!

Proportion of Participants Achieving Liver Fat Content <5%^a



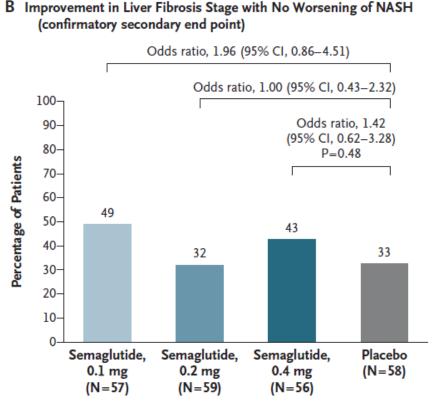
^aFewer participants had MRIs at Week 48 (n=8 [PBO], n=9 [1 mg RETA], n=9 [4 mg RETA], n=8 [8 mg RETA], n=9 [12 mg RETA]) compared to Week 24 (n=14 [PBO], n=16 [1 mg RETA], n=15 [4 mg RETA], n=17 [8 mg RETA], n=15 [12 mg RETA]). MRI=magnetic resonance imaging; NAFLD=non-alcoholic fatty liver disease; PBO=placebo; RETA=retatrutide.

Sanyal et al, ADA 2023

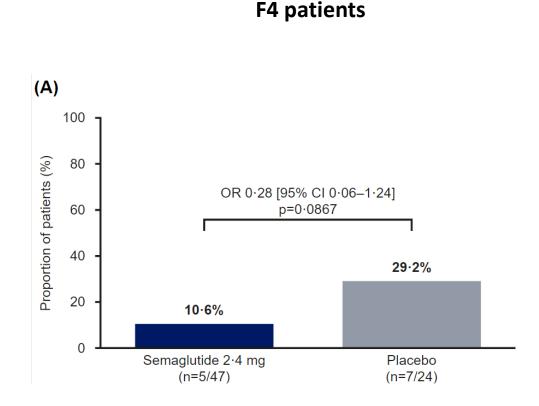
Semaglutide did not show fibrosis improvement vs placebo in either F2-F3 nor F4 patients

B Improvement in Liver Fibrosis Stage with No Worsening of NASH (confirmatory secondary end point) Odds ratio, 1.96 (95% CI, 0.86-4.51) Odds ratio, 1.00 (95% CI, 0.43-2.32) 100 -90-Odds ratio, 1.42 (95% CI, 0.62-3.28) 80-P=0.48 Percentage of Patients 70-60-49 50-43 40-32 33 30-20-10-Semaglutide, Semaglutide, Placebo Semaglutide, 0.1 mg (N=58) 0.2 mg 0.4 mg (N=57) (N=59) (N=56)

Newsome P et al, NEJM; 2020

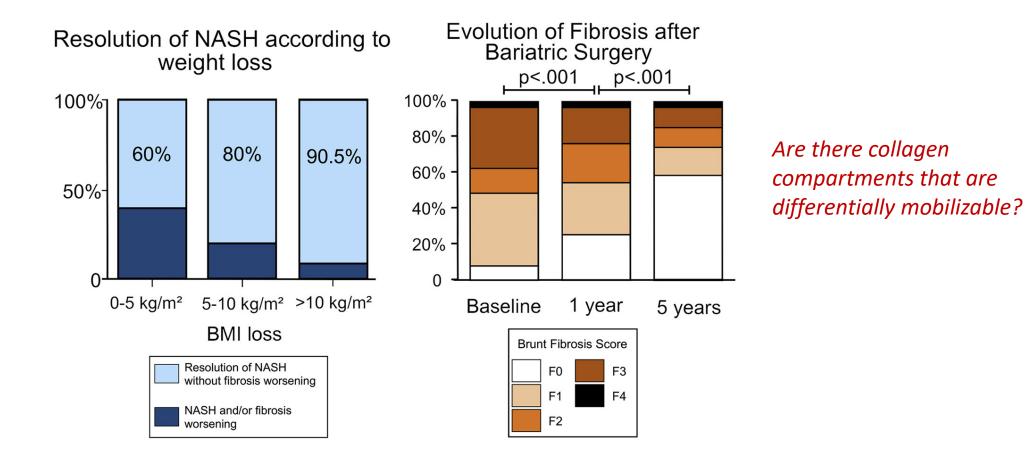


F2-F3 patients

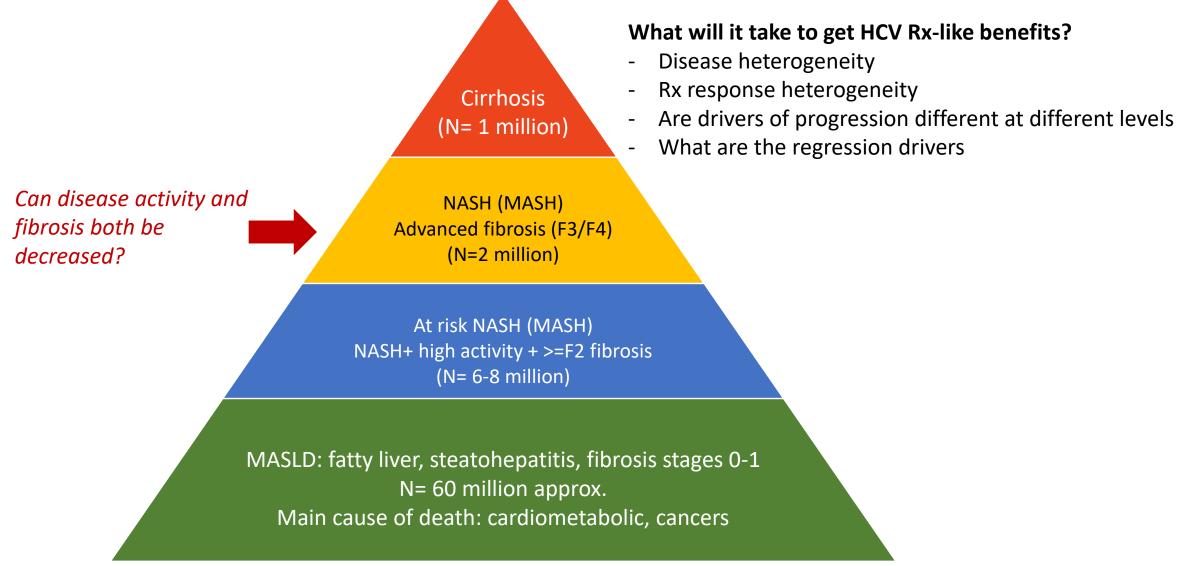


Improvement in fibrosis stage without worsening of NASH

Weight loss does not improve advanced fibrosis

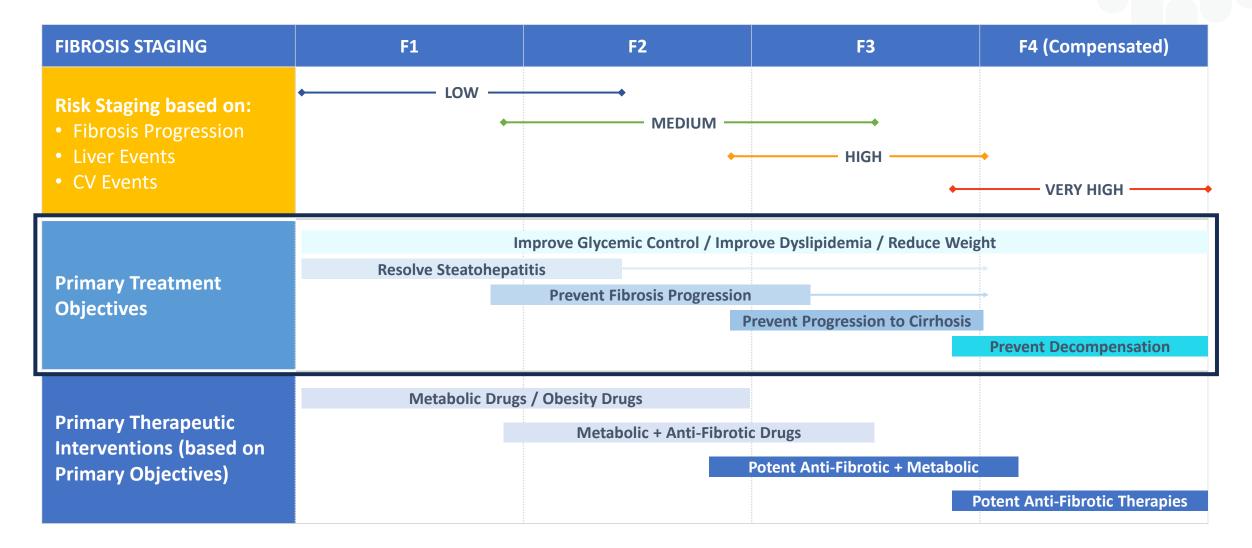


How to optimize drug development for at risk MASH a thought experiment



Adapted from Estes et al, Hepatology 2018

Treatment goals for MASH across fibrosis staging



A look at the competitive landscape for at risk MASH

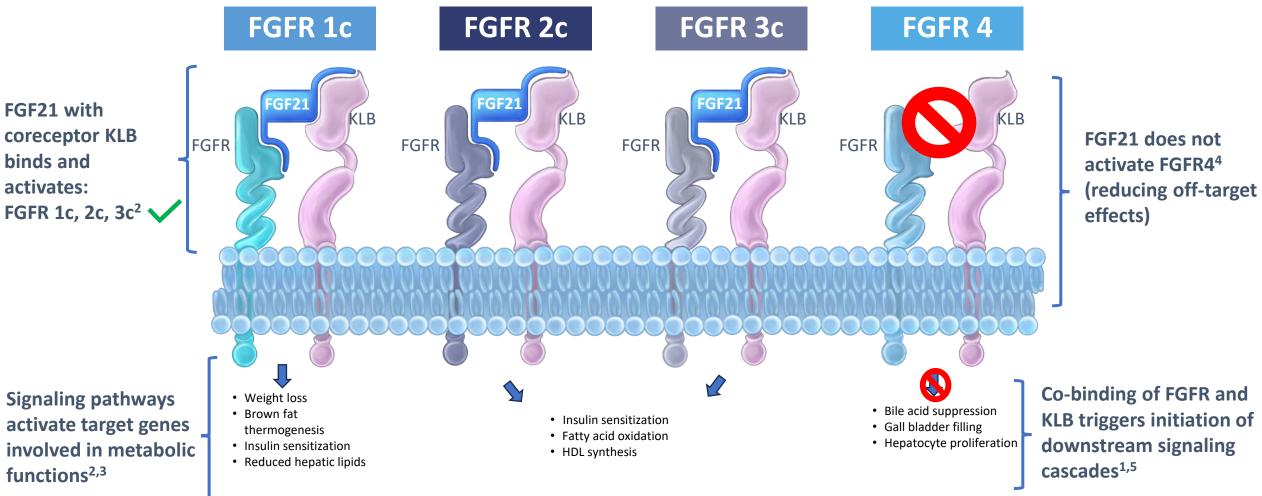
	Pan PPAR	FGF21	Thyroxine B-R	GLP-1
Weight	Gain	Loss	Neutral	Loss
LDL-C HDL-C TG	Increase Increase Decrease	Decrease Increase Decrease	Decrease Neutral Decrease	Neutral Neutral Neutral
MACE	Neutral	?	?	Improved
Stabilize GFR	?	?	?	Improved
Glycemic control	Improved	Neutral/Improved	Neutral	Improved
Improve activity	Yes	Yes	Yes	Yes
Improve fibrosis	Yes	Yes	Yes	Maybe

1. GLP-1 limited by nausea, up to 30% stop therapy but likely to be backbone Rx for Met S

- 2. 2nd gen FGF21 (PGZ and EFX) look very promising
- 3. TBR2 agonists first MOA to be approved
- 4. < 50% patients treated experience both improvement in activity and fibrosis

Sanyal et al, NEJM 2010, Neuschwander-Tetri et al, Lancet 2014, Sanyal et al Lancet 2018, Harrison et al Lancet 2018, Harrison et al AASLD 2018, Newsome et al Lancet 2016, Ratziu et al Nature Medicine 2021, Franque et al NEJM 2022

FGF21 acts via an FGF Receptor (FGFR) and the coreceptor KLB



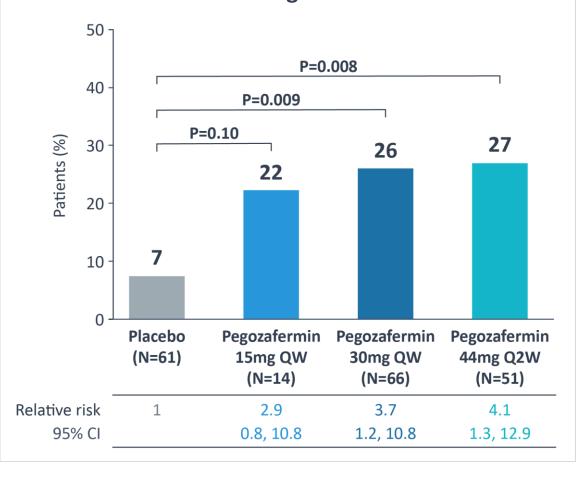
2nd messenger signaling cascades

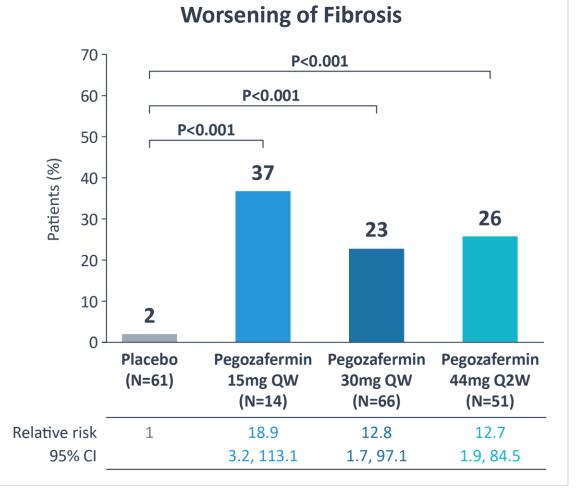
FGF21, fibroblast growth factor 21.

1. Agrawal A, et al. *Mol Metabol.* 2018;13:45-55. 2. Sonoda J, et al. *Horm Mol Biol Clin Investig.* 2017;30(2):20170002. 3. Kwok KHM, Lam KSL. *Endocrinol Metab.* 2017;32(2):145-151. 4. Yang C, et al. *PLoS ONE.* 2012;7(3):e33870. 5. Kilkenny DM, Rocheleau JV. *Vitamins Hormones.* 2016;101:17-58.

Pegozafermin treatment led to a significant improvement on primary endpoints at week 24

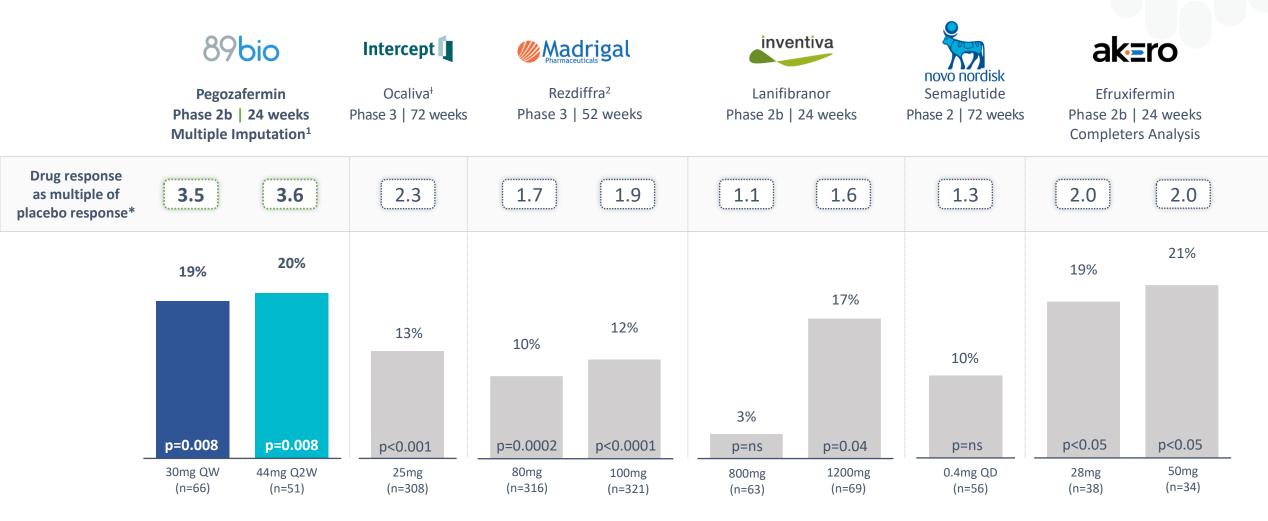
Fibrosis Improvement ≥1 Stage Without Worsening of NASH





NASH Resolution Without

Therapeutic landscape through the lens of fibrosis improvement

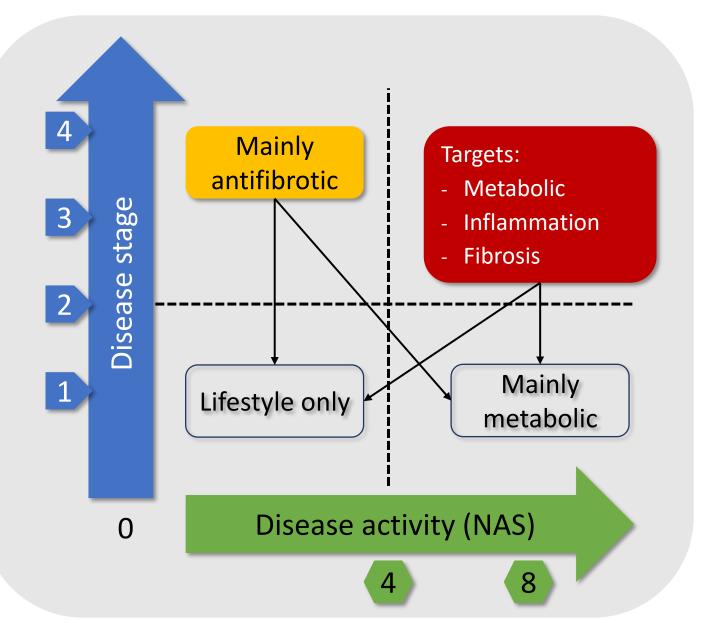


*Drug response as multiple of placebo response is calculated by dividing drug response by placebo response

¹ Results same for Completer Analysis Set from 89bio Phase 2 ENLIVEN Trial; ² \geq 1 stage fibrosis improvement with no worsening of NAS. Fibrosis improvement by \geq 1 stage with no worsening of NAFLD activity score.; [†]Program 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.

Combination therapies- current approaches can be improved



- Population
- Relevant targets
- Relevant endpoints
- Booster strategies
- Ongoing combo trials:
 - Semaglutide + FGF21 (NCT # 05016882)
 - Semaglutide + fixed dose combo of cxilofexor and firsocostat in cirrhosis (NCT #04971785)

Sustained benefits on fibrosis markers were observed with pegozafermin vs. placebo in patients on background GLP-1 therapy at week 48

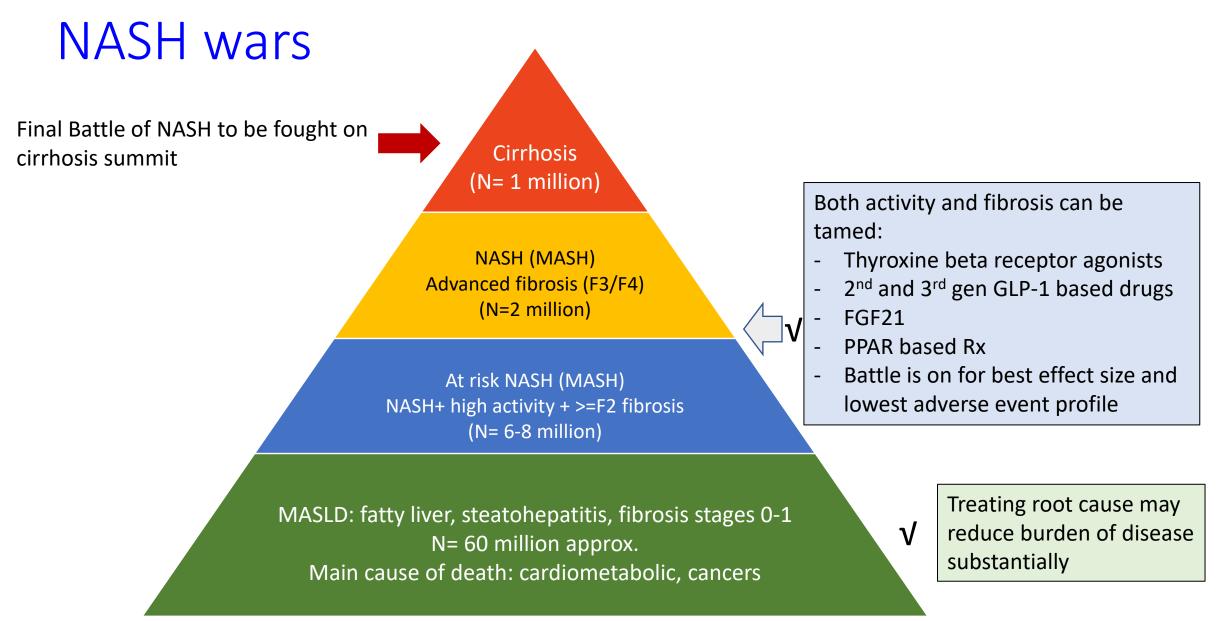


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Treatment Considerations in Compensated Cirrhosis (F4) MASH



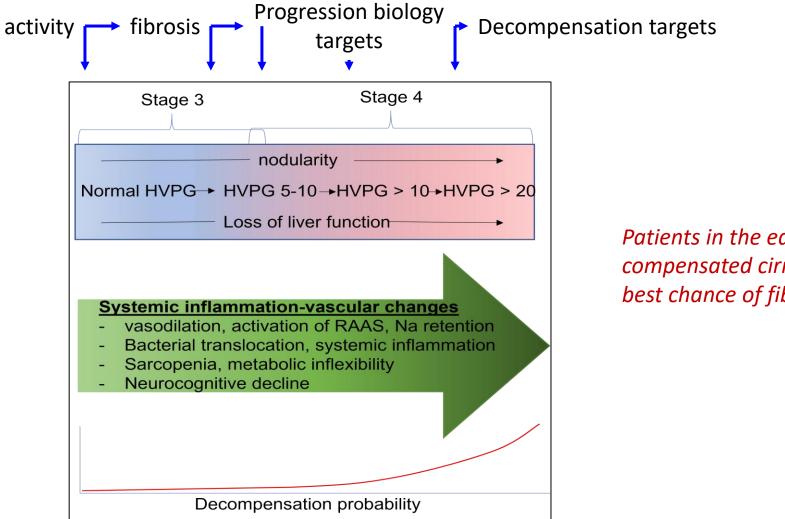




Advanced fibrosis increases the hazard ratio for all-cause mortality, liver-related death and comorbidities

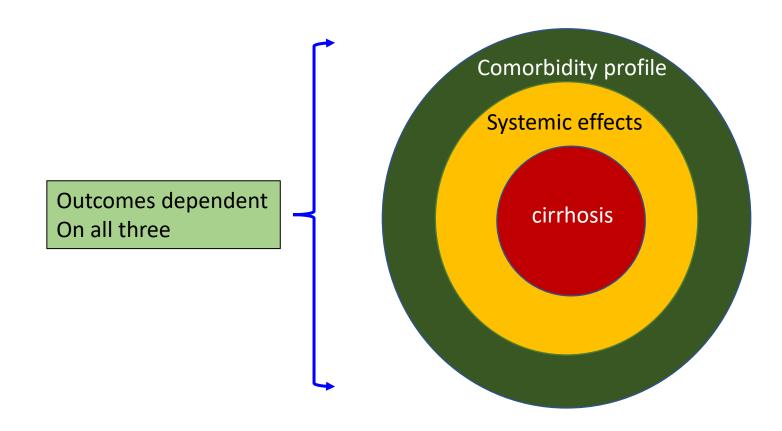
	Hazard Ratio for F3 vs F0-F2 (95% CI)	Hazard Ratio for F4 vs F0-F2 (95% CI)
Death from any cause	1.9 (0.9 - 3.7)	3.9 (1.8 - 8.4)
Liver-related death	5.8 (0.9 - 38.4)	12.7 (1.8 - 88.6)
Any hepatic decompensation event	18.7 (4.8 - 73.1)	36.1 (8.9 - 146.3)
MELD score ≥15	1.2 (0.6 - 2.3)	3.7 (1.8 - 7.3)
НСС	9.3 (1.4 - 61.8)	4.9 (0.4 - 63.2)

Selecting the Right patient



Patients in the earlier stages of compensated cirrhosis have best chance of fibrosis reversal

Selecting the Right Target



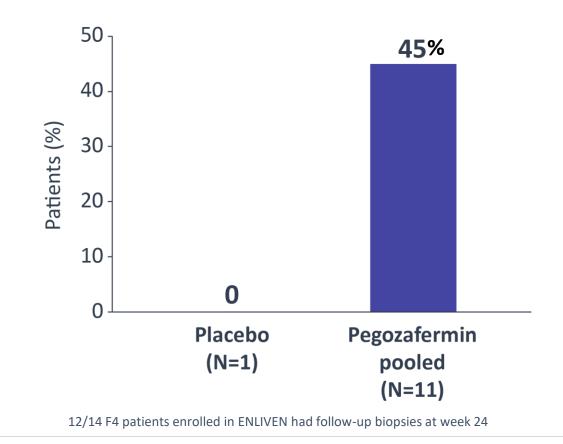
- Agents targeting systemic milieu may not be sufficient
- Targeting cirrhosis before systemic consequences of cirrhosis are well established may allow both elements to be resolved
- With progression to established vasodilation, systemic inflammation etc., simply targeting cirrhosis related drivers may not be sufficient
- Combination of upstream targets with cirrhotic progression drivers will be needed to prevent decompensation
- Since pathophysiology of ascites and HE are vastly different, patients closest to outcomes may be targeted approaches

Why FGF21 analogs may be the right target for MASH compensated cirrhosis

- Mechanism of action: direct liver anti-fibrotic effect and metabolic benefits
 - Suppresses Kupffer cell and hepatic stellate cell activation thus reducing inflammation and fibrogenesis
 - Reduces pro-fibrotic signaling
 - Continued suppression of metabolic insult to the liver ["liver healing"]
- Most robust & consistent fibrosis regression data and prevention of fibrosis progression in advanced fibrosis patients (F3 patients)
- Promising data in compensated cirrhotic patients in phase 2 studies
- In the right F4 patients, potent FGF21 analogs appear to be the best known target to show fibrosis regression and improvement in clinical outcomes

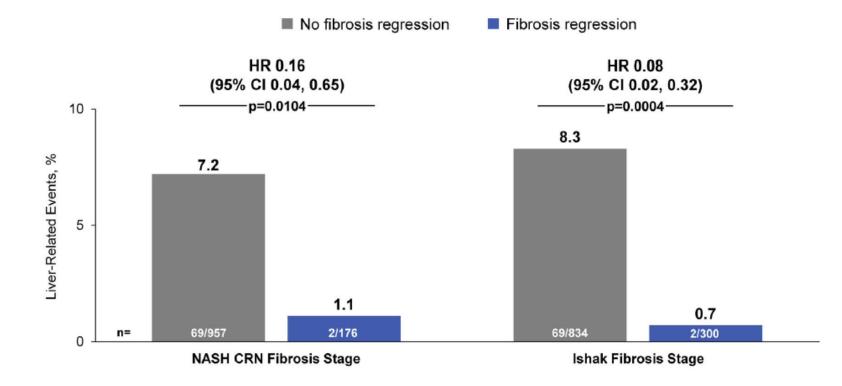
Pegozafermin: Fibrosis improvement without worsening of NASH in 45% of patients with F4 fibrosis at baseline

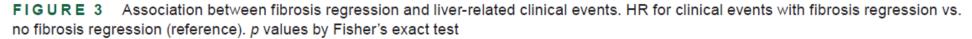
Fibrosis Improvement ≥1 Stage Without Worsening of NASH

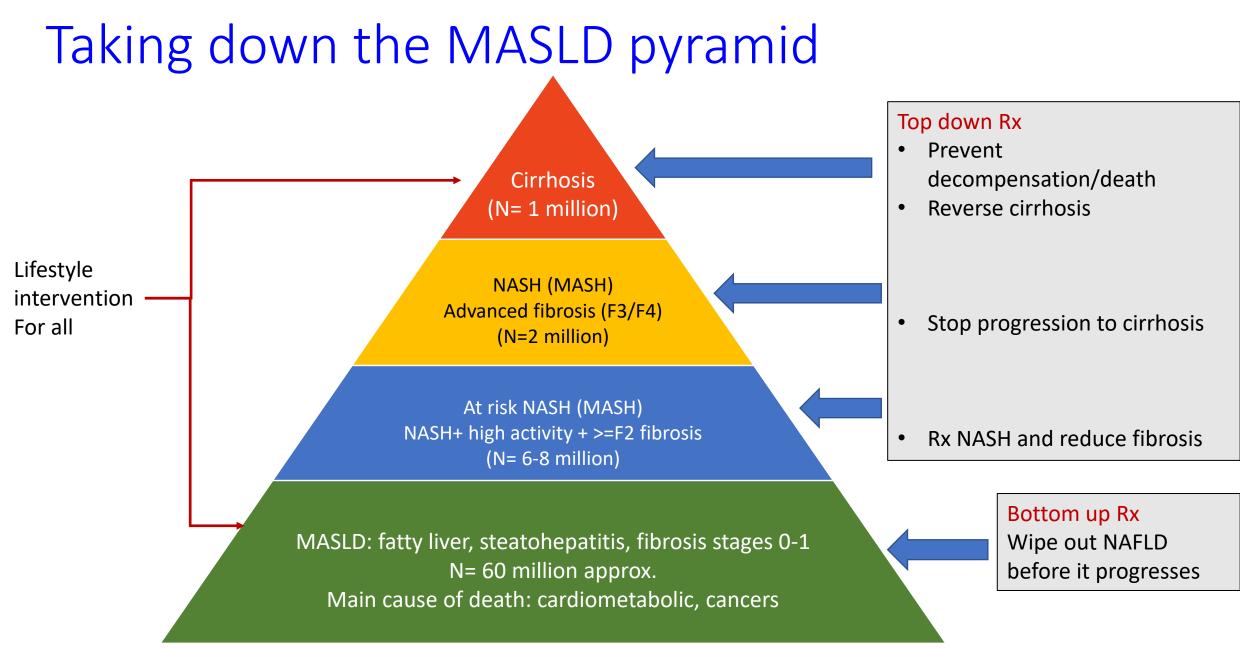


Parameter	Mean Change from Baseline on Pegozafermin (n=12)
MRI-PDFF	-33%
ALT	-53%
AST	-31%
ELF	-0.4 units
cT1	-87 msec

Dramatic reduction in liver-related events in cirrhosis patients with fibrosis regression







Adapted from Estes et al, Hepatology 2018

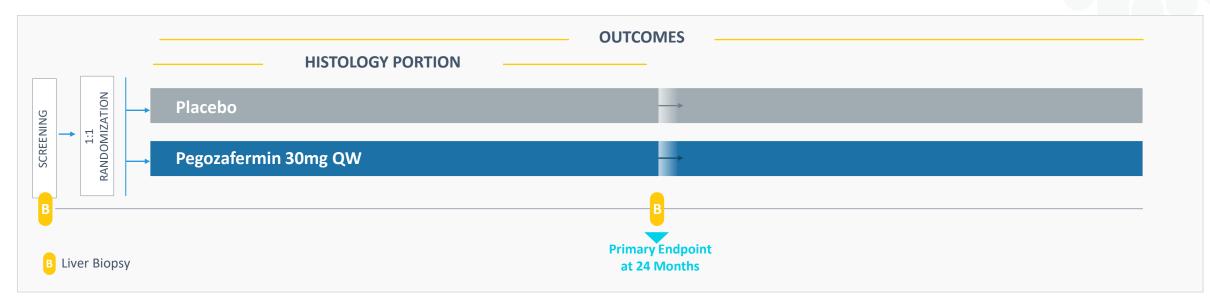
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Phase 3 ENLIGHTEN-Cirrhosis Trial in Compensated F4 MASH





ENLIGHTEN-Cirrhosis: First FGF21 Analog to Enter Phase 3 Study in Compensated Cirrhosis (F4)



HISTOLOGY PORTION FOR ACCELERATED APPROVAL

- **Primary Endpoint:** Regression of fibrosis from F4 to an earlier stage of fibrosis
- **Duration:** 24 months
- Patients: Subset of the 760 patients

OUTCOMES PORTION FOR FULL APPROVAL

- **Primary Endpoint:** Clinical outcomes composite to support full approval in the U.S. and in Europe, 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
- Patients: Approximately 760 patients*

ENlighten

in Compensated

Cirrhotic (F4)

MASH patients

ENLIGHTEN-Cirrhosis: Positioned for Success on Histology and Outcomes

HISTOLOGY

- FGF21 analogs have demonstrated greatest degree of benefit in fibrosis regression
- Consistent response in fibrosis & NIT across
 F3 and F4 to support potential for robust
 fibrosis benefit
- Enroll/select patients with early F4 disease more likely to show fibrosis regression
- Follow-up biopsy at 24 months
 - Expected to be sufficient time to allow PGZ to work
 - Could reduce placebo biopsy noise
- Robust statistical design to determine a clinically meaningful delta

OUTCOMES

- Build on strong fibrosis regression and NIT data from ENLIVEN
- Enroll/select additional patients with the right profile to increase event rates
- Modified outcome definitions to increase event rate
- Rigorous endpoint assessment
- Robust statistical design to determine a clinically meaningful delta

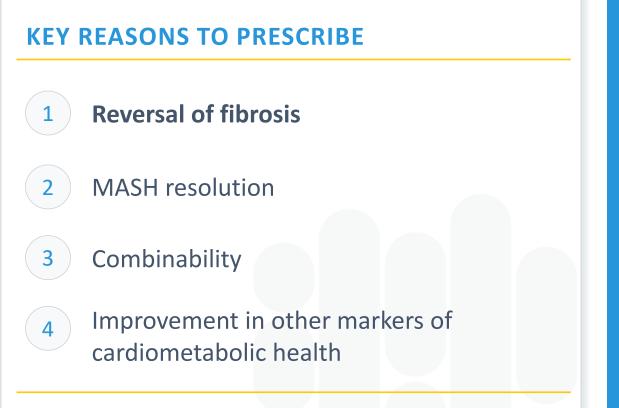
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Pegozafermin's Market Opportunity





FGF21s are the Preferred Class and Pegozafermin Offers the Most Favorable Overall Profile



Well tolerated given chronic treatment

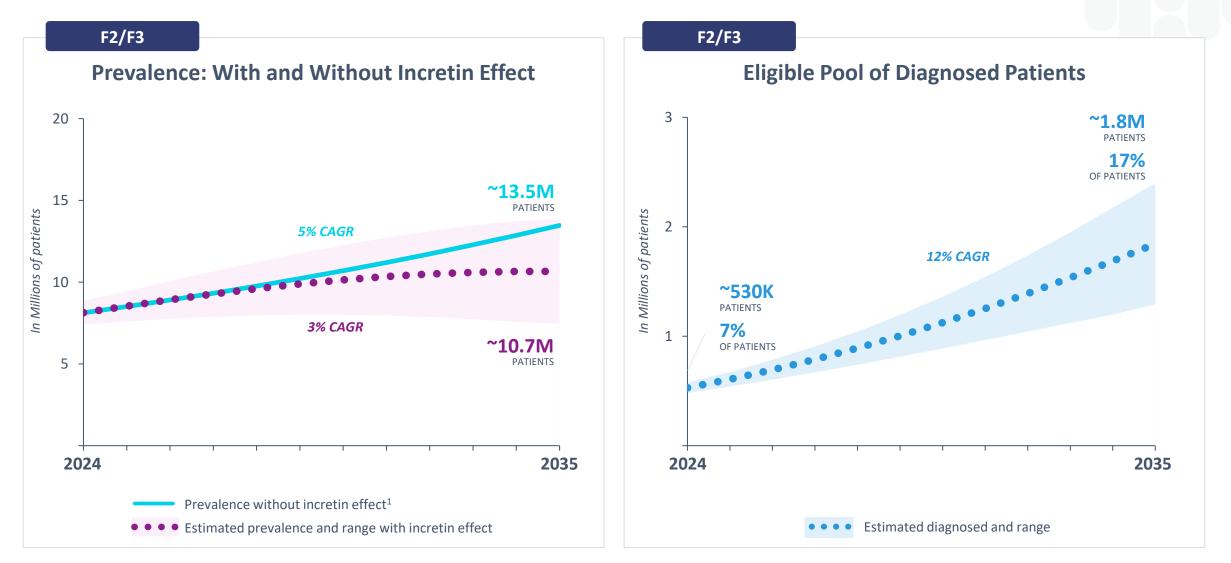
COMPETITIVE DIFFERENTIATION

FGF21: PREFERRED CLASS

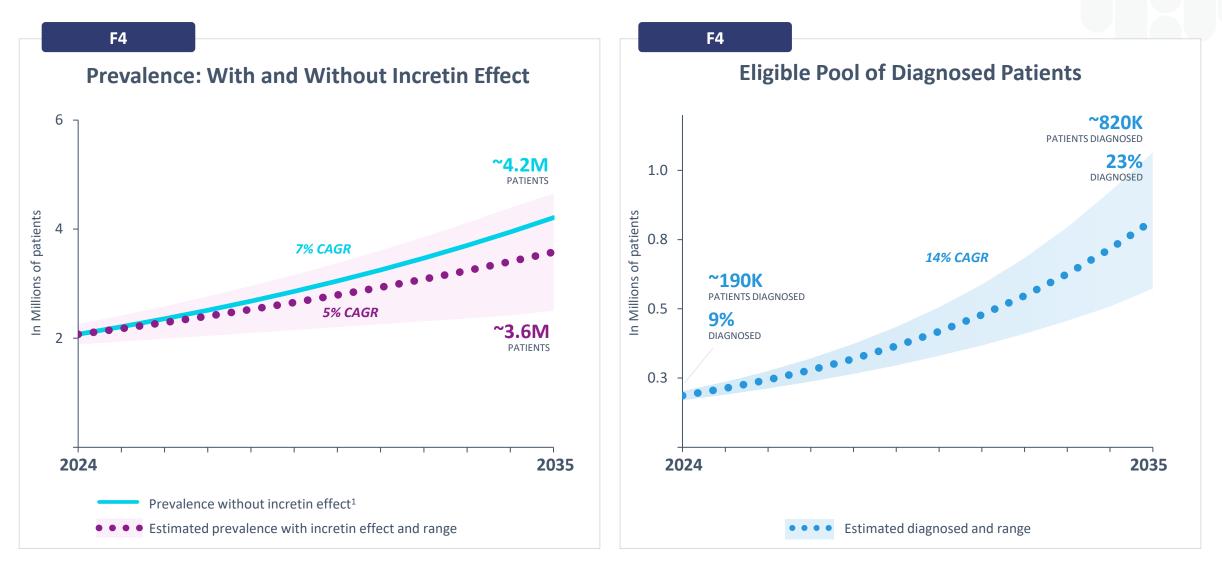
Direct anti-fibrotic effect and broad metabolic health benefits of FGF21 targeted agents recognized by HCPs

PGZ: MOST FAVORABLE OVERALL PROFILE Best overall efficacy and tolerability profile, especially fibrosis improvement, with fewer injections

Advanced MASH (F2/F3) Represents a Significant Market

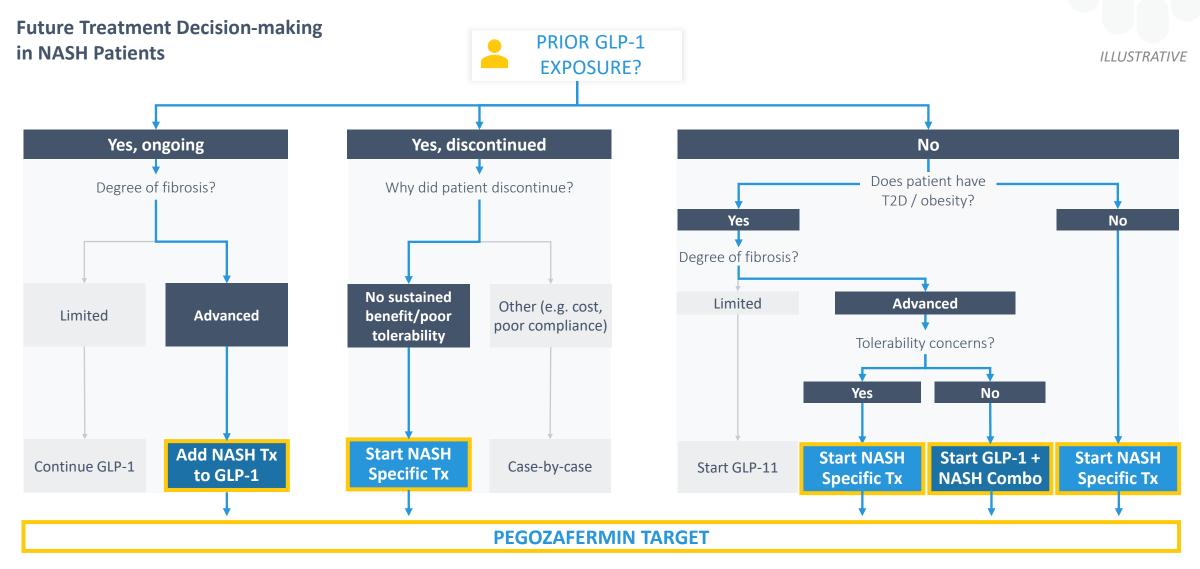


Market Opportunity in Compensated F4 Patients Continues to Grow



1. Estes, et al. Hepatology 2018.
 Note: All estimates and projections are based on company estimates and market research.

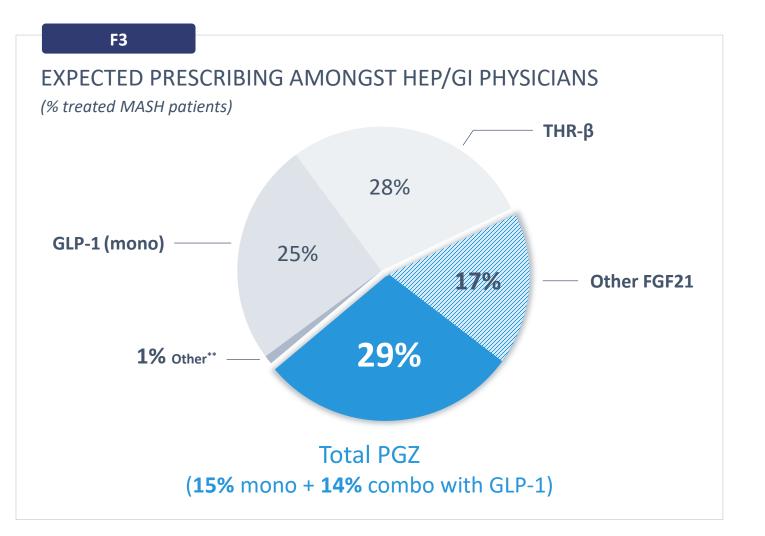
Pegozafermin – Potential Usage in Multiple Settings with GLP-1 Based on Treatment History, Fibrosis Stage and Comorbidities



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¹To re-evaluate fibrosis progression after 6 – 12 months to assess need for NASH-specific Tx. HCP: Healthcare Provider; T2D: Type 2 Diabetes; Tx: Treatment. Source: Physician Interviews; ClearView Analysis.

Pegozafermin Expected to Garner Significant Market Share In F3 Patients



FGF21s garner ~45% market share, with ~2/3rd gained by PGZ

 PGZ benefit/risk profile and fewer injections make it preferred FGF21

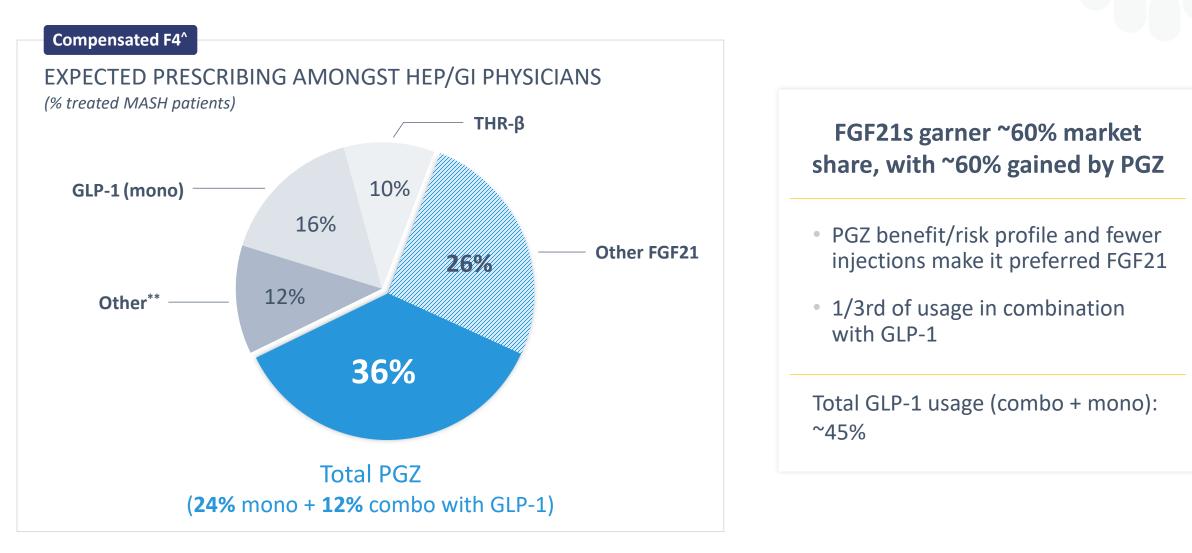
 ~50% of usage in combination with GLP-1

Total GLP-1 usage (combo + mono): ~65%



^F4 shares only tested change if pegozafermin had FDA approval in F4 patients and assumes uptake in "other FGF21" due to benefit of being in the same class; research did not show profiles or assume approvals for other agents. Source: Primary research with 35 Hep/GIs, September 2023.

Pegozafermin Expected to Garner Significant Market Share In Compensated F4 Patients



^{**}Includes no pharmacologic treatment, clinical trials and existing non-approved agents like vitamin E or pioglitazone

^F4 shares only tested change if pegozafermin had FDA approval in F4 patients and assumes uptake in "other FGF21" due to benefit of being in the same class; research did not show profiles or assume approvals for other agents. Source: Primary research with 35 Hep/GIs, September 2023.

Pegozafermin is Positioned for Success on Multiple Fronts

