ALTIMMUNE, INC. CORPORATE PRESENTATION

Q4 2022

altimmune | NASDAQ: ALT

Forward-looking statements

Safe-Harbor Statement

This presentation has been prepared by Altimmune, Inc. ("we," "us," "our," "Altimmune" or the "Company") and includes certain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding the timing of clinical development and funding milestones for our clinical assets as well as statements relating to future financial or business performance, conditions, plans, prospects, trends, or strategies and other financial and business matters, and the prospects for commercializing or selling any product or drug candidates. In addition, when or if used in this presentation, the words “may,” “could,” “should,” “anticipate,” “believe,” “estimate,” “expect,” “intend,” “plan,” “predict” and similar expressions and their variants, as they relate to the Company may identify forward-looking statements. The Company cautions that these forward-looking statements are subject to numerous assumptions, risks, and uncertainties, which change over time. Important factors that may cause actual results to differ materially from the results discussed in the forward looking statements or historical experience include risks and uncertainties, including risks relating to: potential impacts due to the COVID-19 pandemic such as delays in regulatory review, manufacturing and supply chain interruptions, adverse effects on healthcare systems and disruption of the global economy, the timing and reliability of the results of the studies relating to human safety and possible adverse effects resulting from the administration of the Company’s product candidates; our lack of financial resources and access to capital; clinical trials and the commercialization of proposed product candidates (such as marketing, regulatory, product liability, supply, competition, dependence on third parties and other risks); the timing of regulatory applications and the regulatory approval process; dependence on intellectual property. Further information on the factors and risks that could affect the Company's business, financial conditions and results of operations are contained in the Company’s filings with the U.S. Securities and Exchange Commission, including under the heading “Risk Factors” in the Company’s annual reports on Form 10-K and quarterly reports on Form 10-Q filed with the SEC, which are available at www.sec.gov. The statements made herein speak only as of the date stated herein, and any forward-looking statements contained herein are based on assumptions that the Company believes to be reasonable as of this date. The Company undertakes no obligation to update these statements as result of new information or future events.

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ALTIMMUNE HIGHLIGHTS

Developing next generation peptide therapeutics for obesity and liver diseases

Multiple near-term value-driving catalysts in both obesity and NASH

$201.9M cash, cash equivalents and short-term investments at 9/30/2022

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STRONG EXECUTIVE MANAGEMENT TEAM

Vipin K. Garg, PhD
President & CEO

Richard Eisenstadt, MBA
Chief Financial Officer

Scott Harris, MD
Chief Medical Officer

Scot Roberts, PhD
Chief Scientific Officer

Bertrand Georges, PhD
Chief Technology Officer

José Ochoa, JD
Chief Business Officer

IDT
tranzyme pharma
NEOS Therapeutics
emergent biosolutions
ImQuest BioSciences
Institut Pasteur
Lyric Pharmaceuticals
ocera
SEPRACOR
Rheem The new degree of comfort.
Wellstat Group of Companies
IMMUNE TARGETING SYSTEMS
Aytu BIOPHARMA
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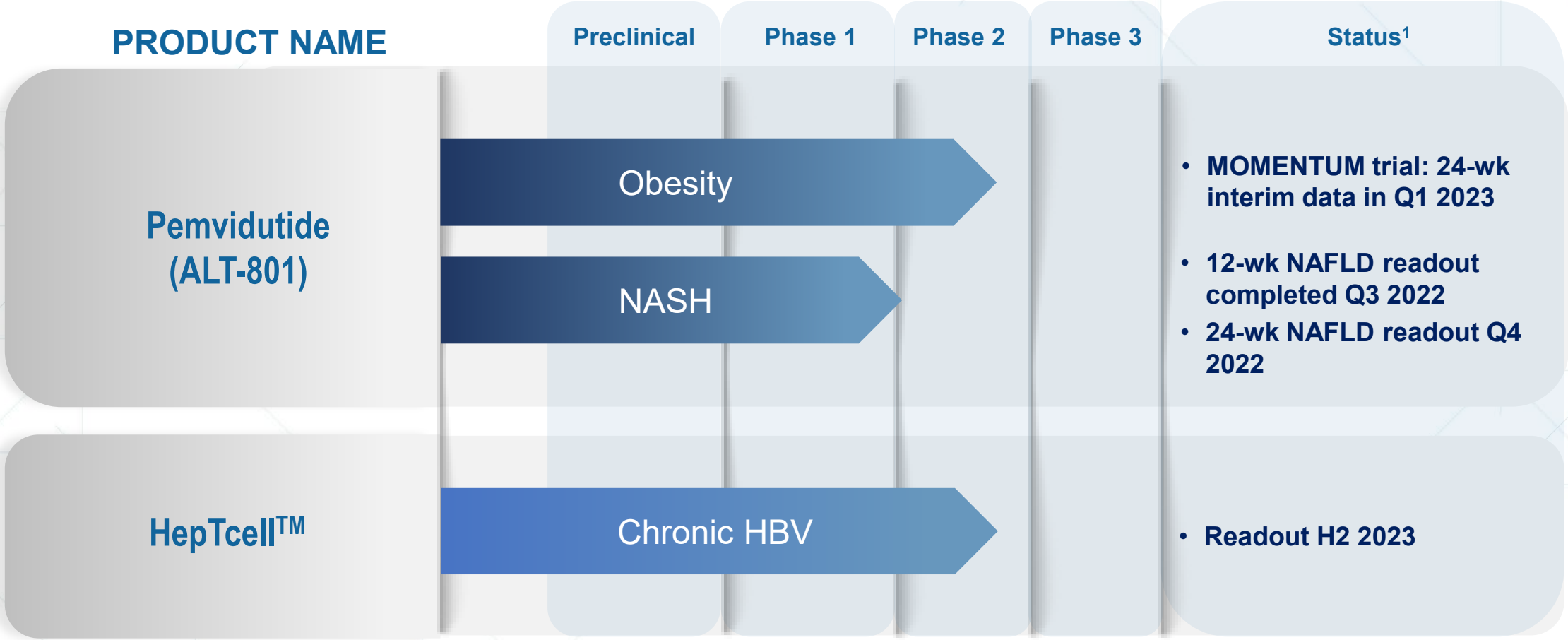
FOCUSED PIPELINE



[1] *Expected Dates*

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Pemvidutide: Obesity and NASH

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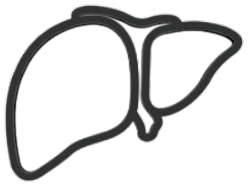
OBESITY AND NASH

RELATED INDICATIONS BUT WITH DISTINCT THERAPEUTIC OBJECTIVES

Excess Body Fat

Obesity (108 million in U.S.[1])

NASH (16.7 million in U.S.[2])



Therapeutic Objectives

- **Reduce body weight**
- Improve serum lipid profile
- Reduce liver fat

- **Reduce liver fat**
- **Reduce inflammation**
- Reduce body weight

[1]Hales CM et al. NCHS Data Brief. 2020 Feb;(360):1-8. PMID: 32487284.
[2]Younossi ZM et al all. Hepatology. 2016;64(1):73–84. doi:10.1002/hep.28431

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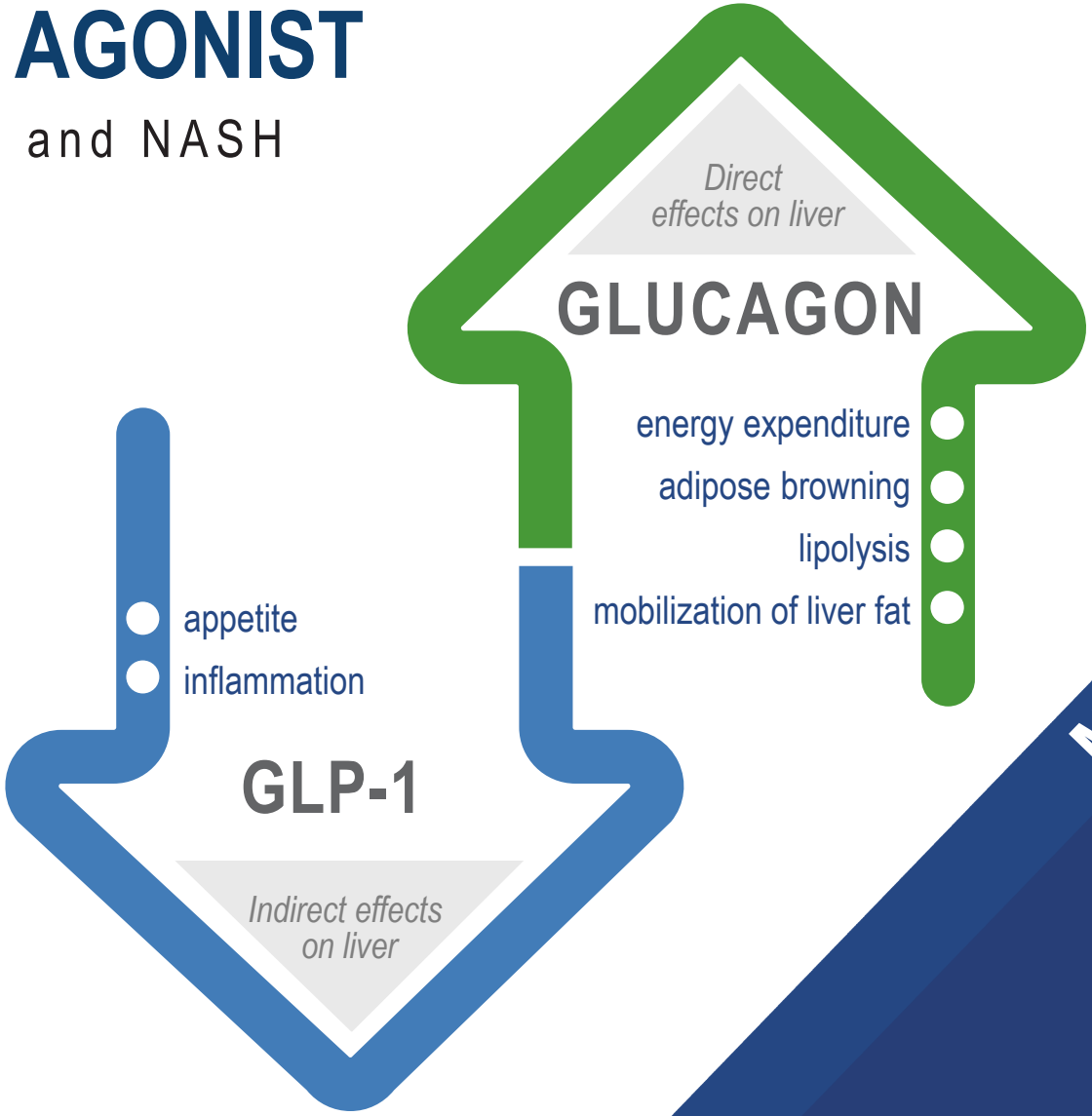
PEMVIDUTIDE:GLP-1/GLUCAGON RECEPTOR DUAL AGONIST

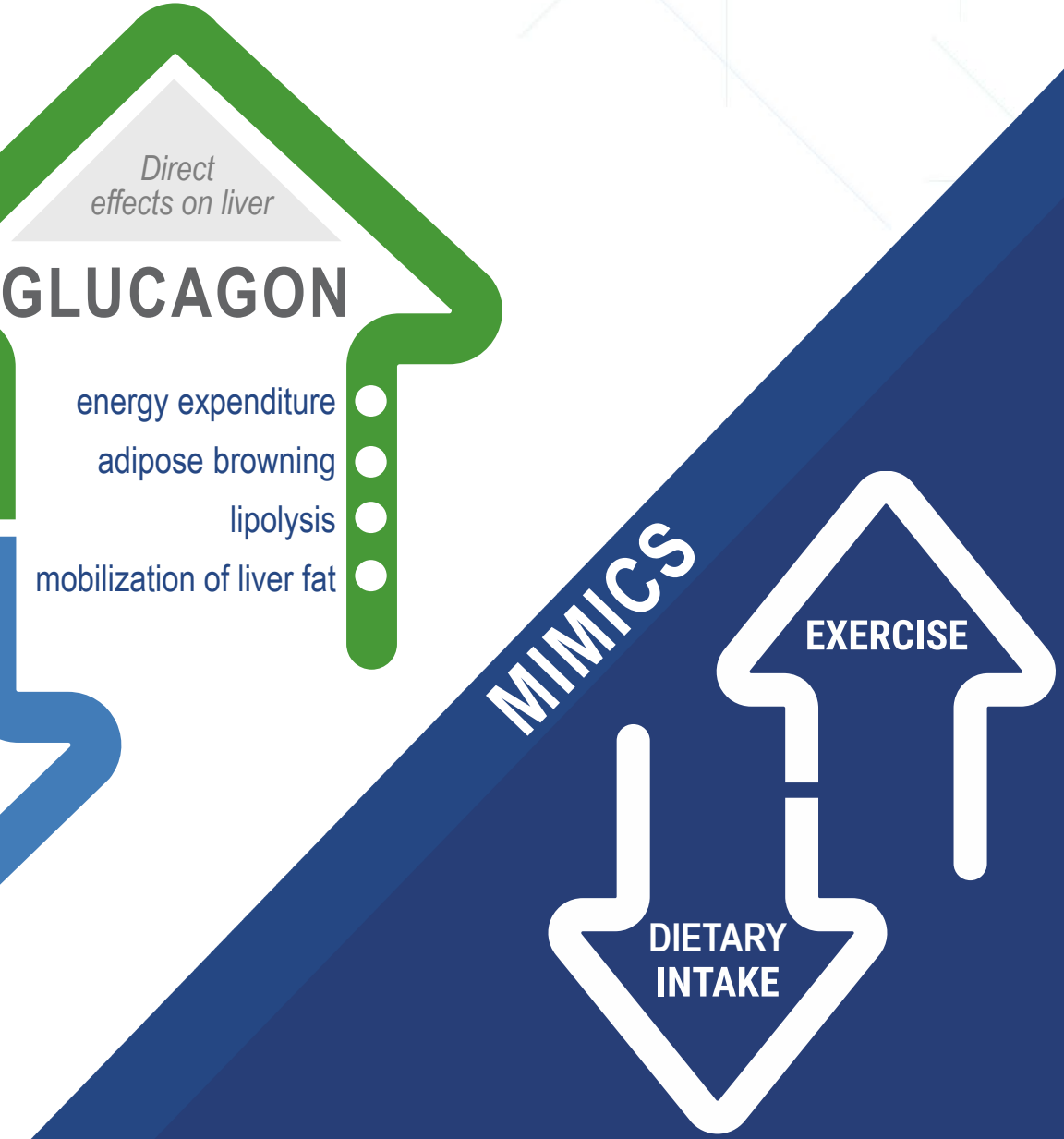
Optimized for weight loss and NASH

Designed for significant reductions in:

BODY WEIGHT

LIVER FAT, INFLAMMATION, & RESULTING FIBROSIS

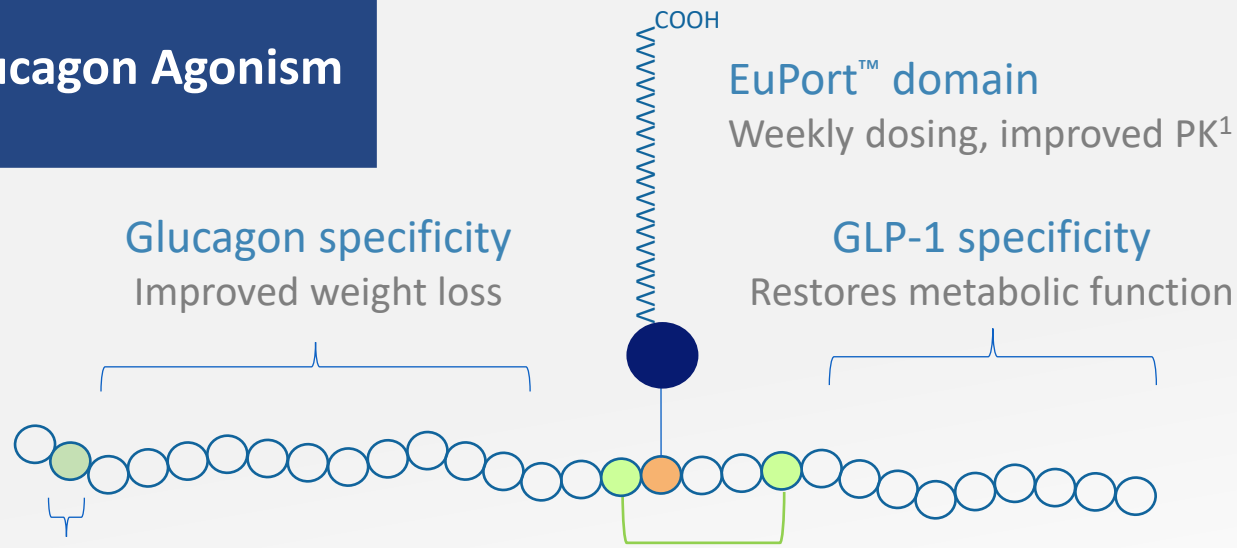




RATIONALLY DESIGNED AND HIGHLY DIFFERENTIATED

EUPORT™ DOMAIN PROVIDES PROLONGED SERUM HALF-LIFE AND DELAYED TIME TO PEAK CONCENTRATION

Pemvidutide:
Balanced GLP-1: Glucagon Agonism



[1]Nestor JJ et al, Peptide Science. 2021;113:e24221

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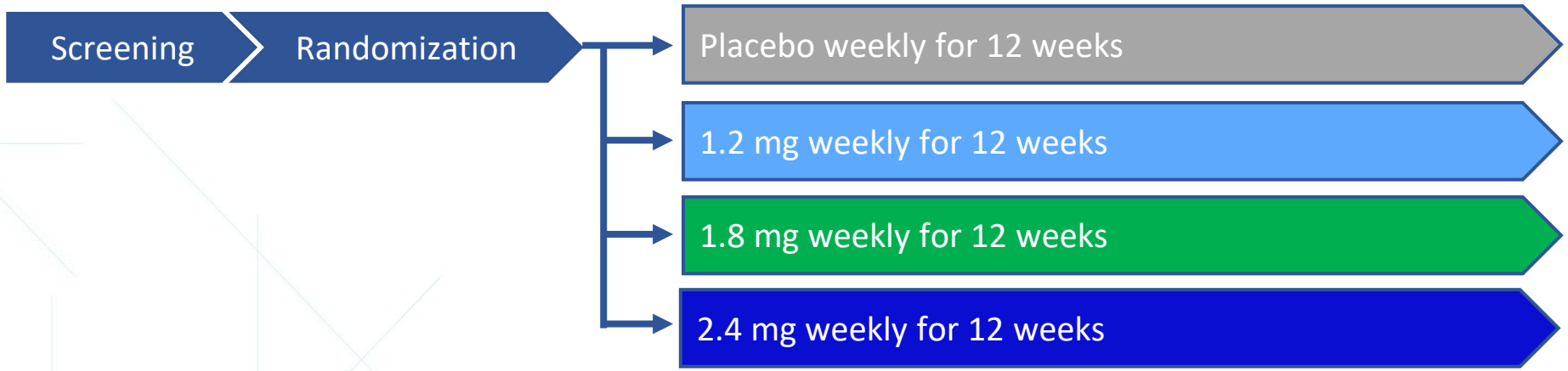
PEMVIDUTIDE PHASE 1a OBESITY STUDY DESIGN

- 12-week, randomized, placebo-controlled, multiple ascending dose (MAD) study of pemvidutide in 34 subjects with overweight/obesity
  - 4:1 randomization (pemvidutide: placebo), with placebos pooled
  - No caloric restriction or lifestyle intervention
  - **No dose titration**
- Key outcomes included
  - Weight loss, cardiometabolic biomarkers & pharmacokinetics
  - Safety & tolerability



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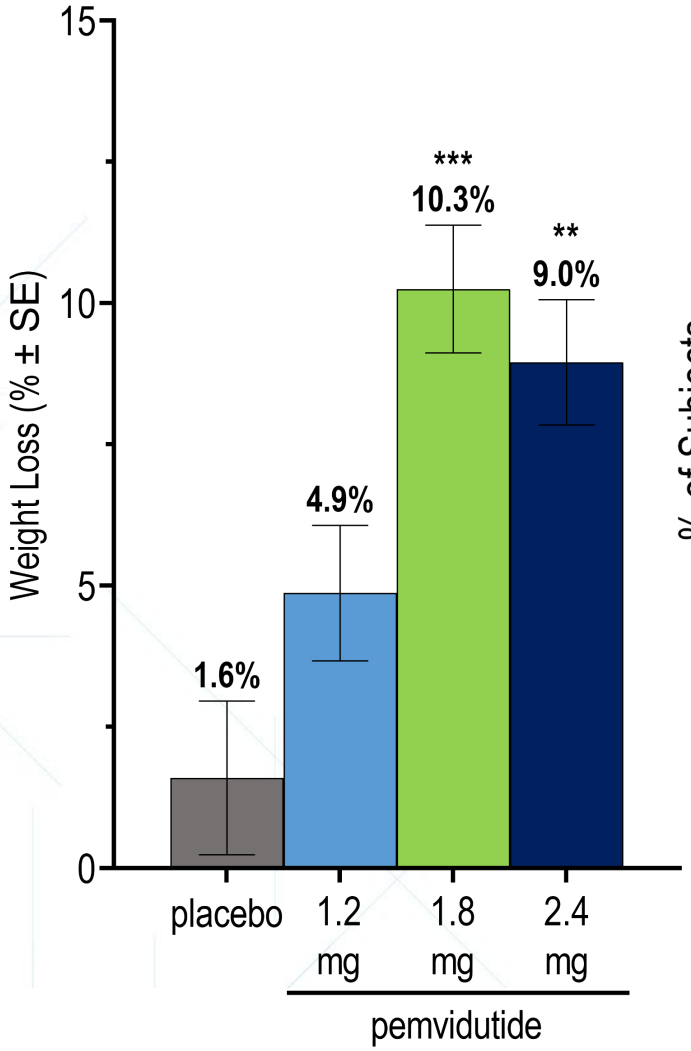
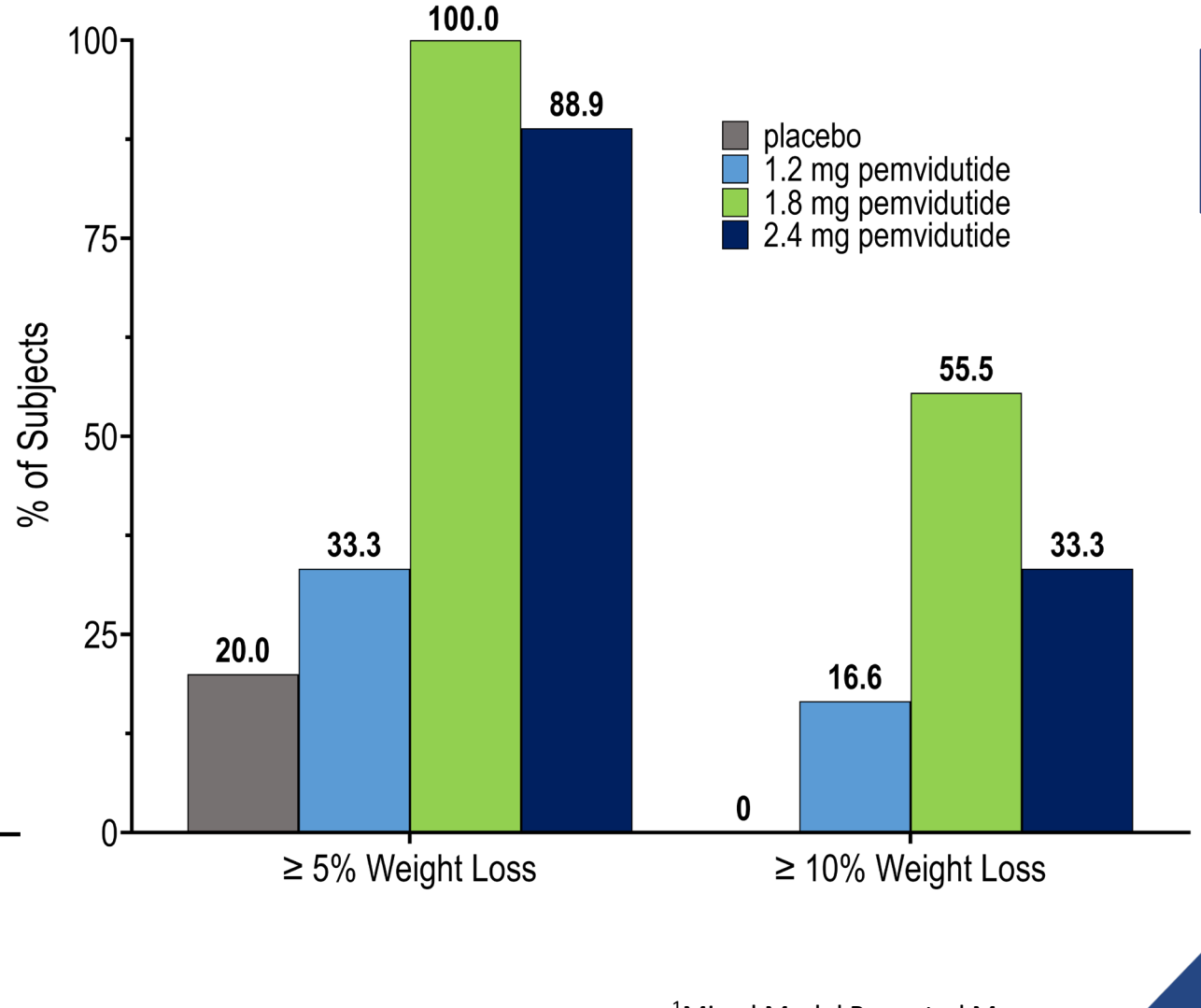
SUBSTANTIAL WEIGHT LOSS AT WEEK 12

10.3% MEAN (8.7% PLACEBO ADJUSTED) WEIGHT LOSS ACHIEVED AT 1.8 MG DOSE





** p < 0.01
*** p < 0.001
vs. placebo,
(MMRM[1])

[1]Mixed Model Repeated Measures

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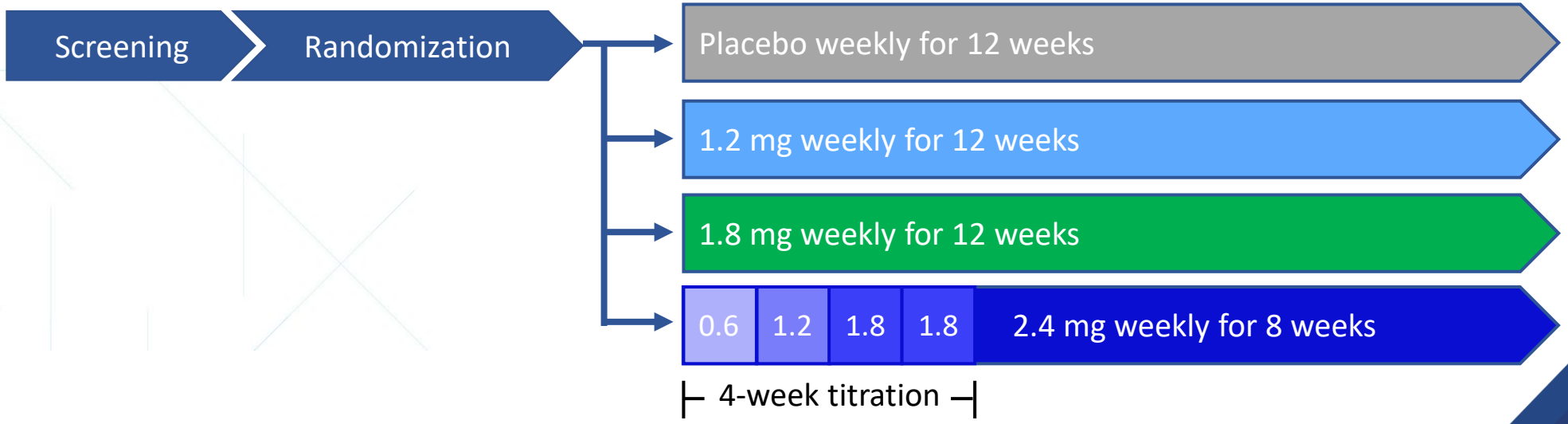
PEMVIDUTIDE PHASE 1b NAFLD TRIAL DESIGN

- 12-week, randomized, placebo-controlled study of pemvidutide in 94 subjects with overweight/obesity and non-alcoholic fatty liver disease (NAFLD)
  - Randomized 1:1:1:1 and dosed across 13 US sites to 1 of 4 treatment arms
  - Stratified by the presence or absence of type 2 diabetes (T2D)
  - No dose titration at 1.2mg & 1.8mg
  - No caloric restriction or lifestyle intervention
- Key Outcomes
  - Reduction in Liver Fat Content
  - Reduction in ALT



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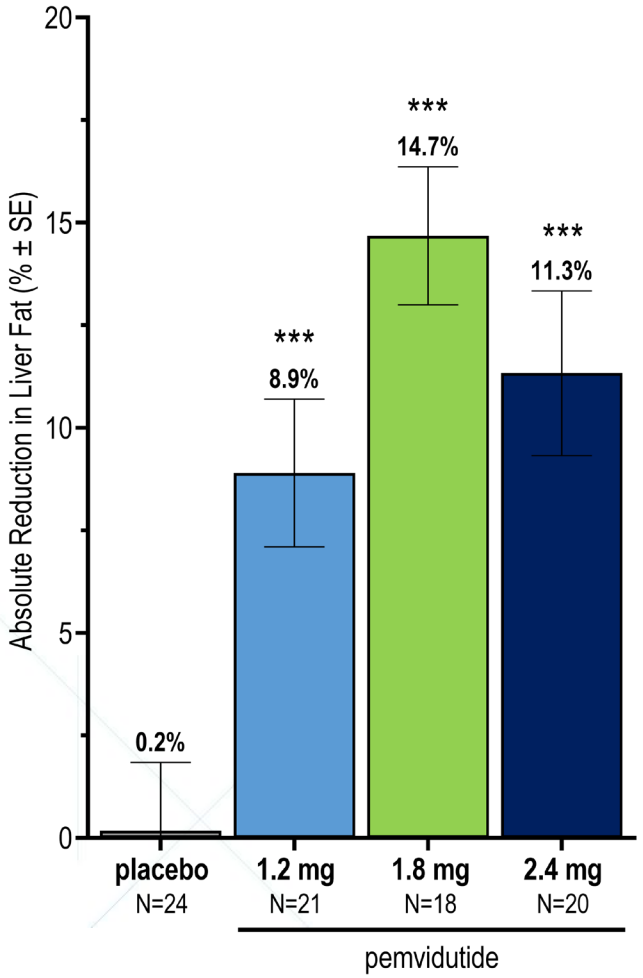
CHARACTERISTICS OF STUDY PARTICIPANTS

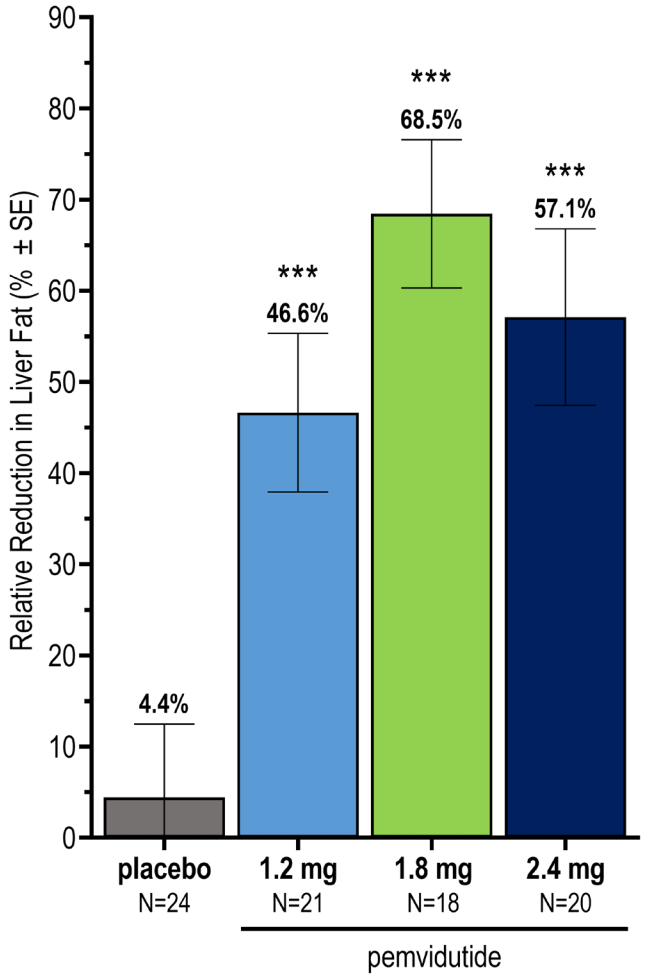
Characteristic		Treatment			
		Placebo (n = 24)	1.2 mg (n=23)	1.8 mg (n=23)	2.4 mg (n=24)
Age, years	mean (SD)	47.9 (14)	48.6 (11)	50.3 (9)	48.8 (8)
Gender	female, n (%)	14 (58.3%)	9 (39.1%)	12 (52.2%)	15 (62.5%)
Race	white, n (%)	21 (87.5%)	21 (91.3%)	20 (87.0%)	24 (100%)
	other, n (%)	3 (12.5%)	2 (8.7%)	3 (13.0%)	0 (0.0%)
Ethnicity	Hispanic, n (%)	14 (58.3%)	20 (87.0%)	19 (82.6%)	18 (75.0%)
	not Hispanic, n (%)	10 (41.7%)	3 (13.0%)	4 (17.4%)	6 (25.0%)
BMI, kg/m^2	mean (SD)	36.9 (4.7)	36.3 (5.6)	35.4 (3.9)	35.3 (5.0)
Body weight, kg	mean (SD)	105.1 (20.8)	102.4 (14.6)	98.9 (19.7)	98.2 (18.9)
Diabetes status	T2D, n (%)	6 (25.0%)	7 (30.4%)	7 (30.4%)	7 (33.3%)
Liver fat content (LFC), %	mean (SD)	23.8 (9.2)	21.6 (7.3)	21.8 (8.0)	20.2 (7.0)
ALT, IU/L	mean (SD)	39.5 (21.4)	32.4 (13.8)	36.4 (15.6)	37.8 (24.4)

REDUCTION IN LIVER FAT CONTENT BY MRI-PDFF AT WEEK 12

Absolute Reduction



Relative Reduction



*** p < 0.001 vs. placebo, (ANCOVA)

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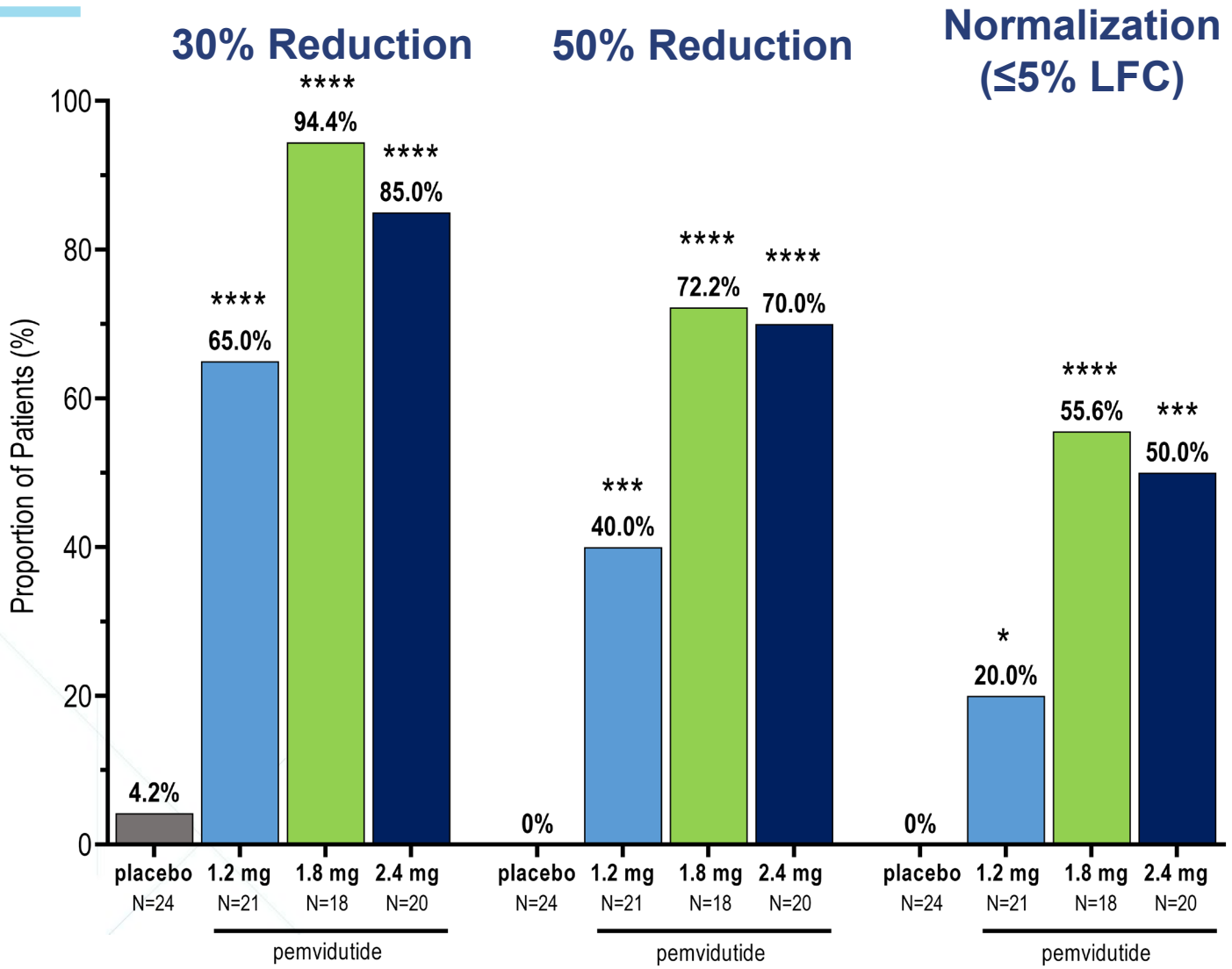
REDUCTION IN LIVER FAT CONTENT – RESPONDER ANALYSIS

12-WEEK DATA



* p < 0.05
*** p < 0.001
**** p < 0.0001
vs. placebo, (CHM[1])

[1] Cochran Mantel Haenszel

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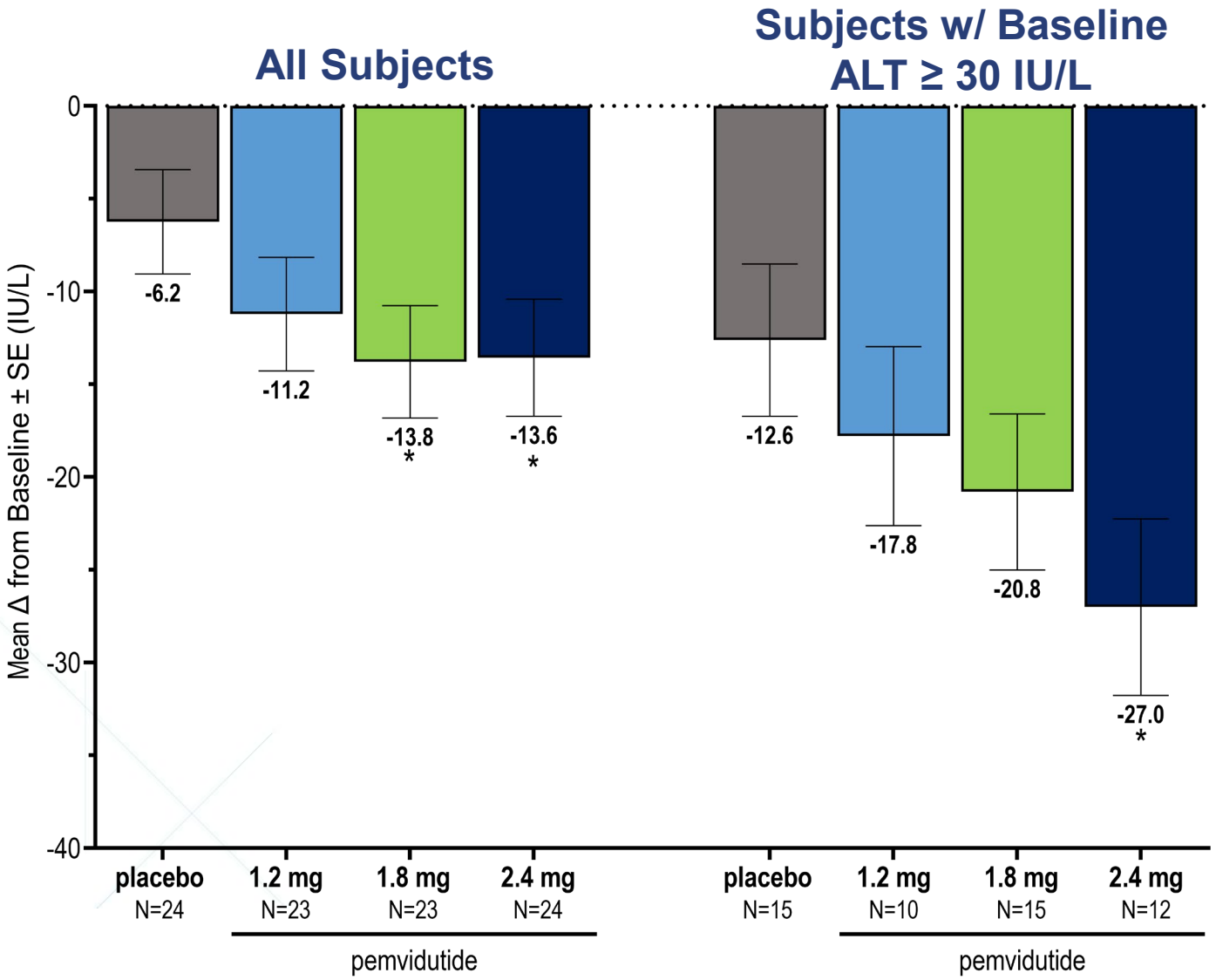
REDUCTION IN ALANINE AMINOTRANSFERASE (ALT) AT WEEK 12



* p < 0.05 vs. placebo, (MMRM)

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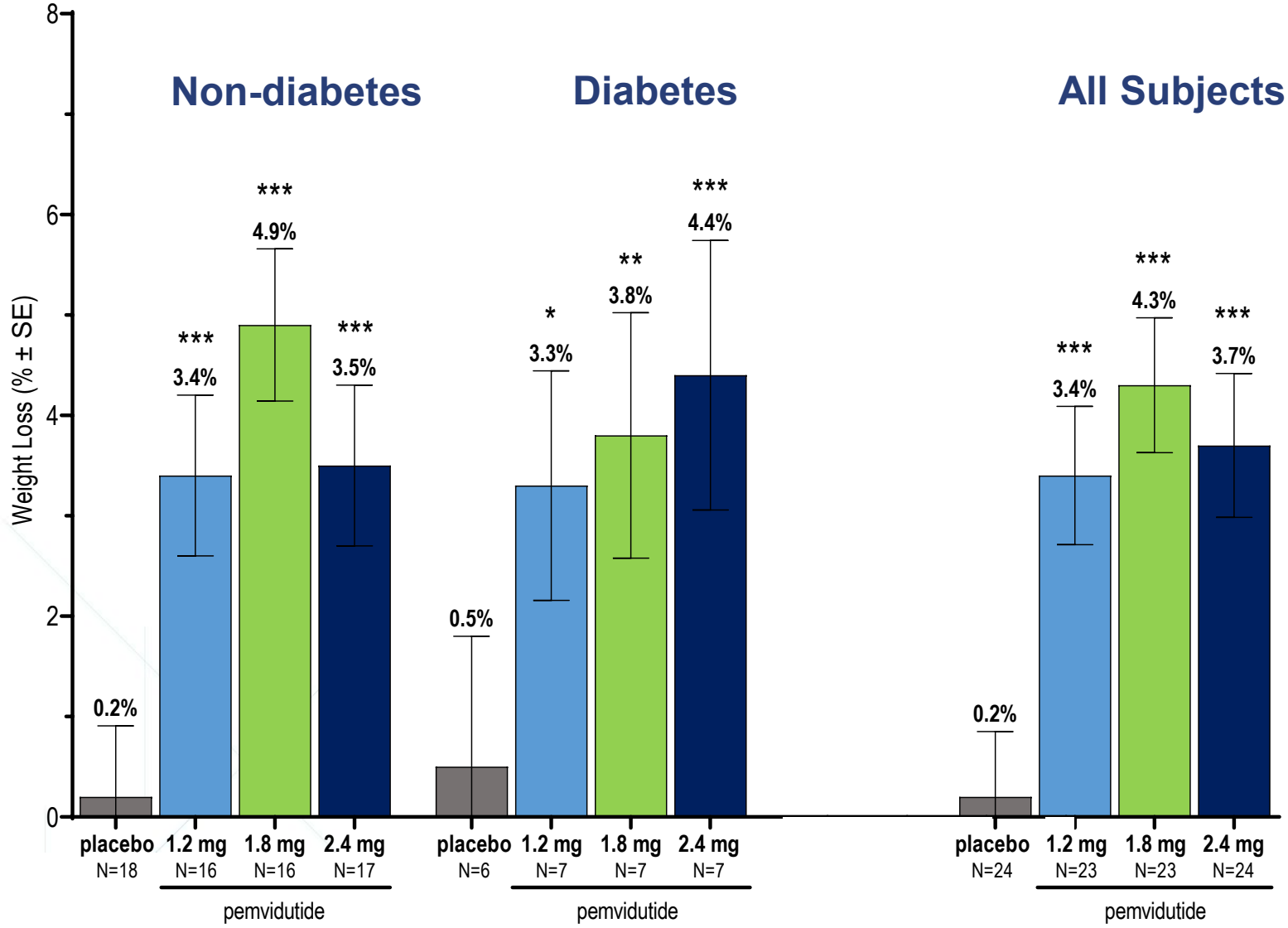
WEIGHT LOSS AT WEEK 12—EFFICACY ESTIMAND



* p < 0.05
** p < 0.005
*** p < 0.001
vs. placebo,
(MMRM)

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SAFETY OVERVIEW

Characteristic		Treatment			
		Placebo (n = 24)	1.2 mg (n=23)	1.8 mg (n=23)	2.4 mg (n=24)
Severe AEs	**n (%)**	**0 (%)**	**0 (%)**	**0 (%)**	**0 (%)**
SAEs	**n (%)**	**0 (%)**	**0 (%)**	**0 (%)**	**0 (%)**
AEs leading to treatment discontinuation	**n (%)**	**0 (%)**	**0 (%)**	**1 (4.3%)**	**1 (4.2%)**
Nausea					
Mild	n (%)	3 (12.5%)	3 (13.0%)	6 (26.1%)	6 (25.0%)
Moderate	n (%)	0 (0.0%)	1 (4.3%)	6 (26.1%)	3 (12.5%)
Vomiting					
Mild	n (%)	0 (0.0%)	3 (13.0%)	2 (8.7%)	2 (8.3%)
Moderate	n (%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Diarrhea					
Mild	n (%)	4 (16.7%)	3 (13.0%)	5 (21.7%)	1 (4.2%)
Moderate	n (%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Constipation					
Mild	n (%)	0 (0.0%)	3 (13.0%)	4 (17.4%)	1 (4.2%)
Moderate	n (%)	0 (0.0%)	1 (4.3%)	0 (0.0%)	0 (0.0%)

Glycemic control sustained, no clinically meaningful heart rate elevations

PEMVIDUTIDE REDUCES LIVER FAT, ALT AND BODY WEIGHT

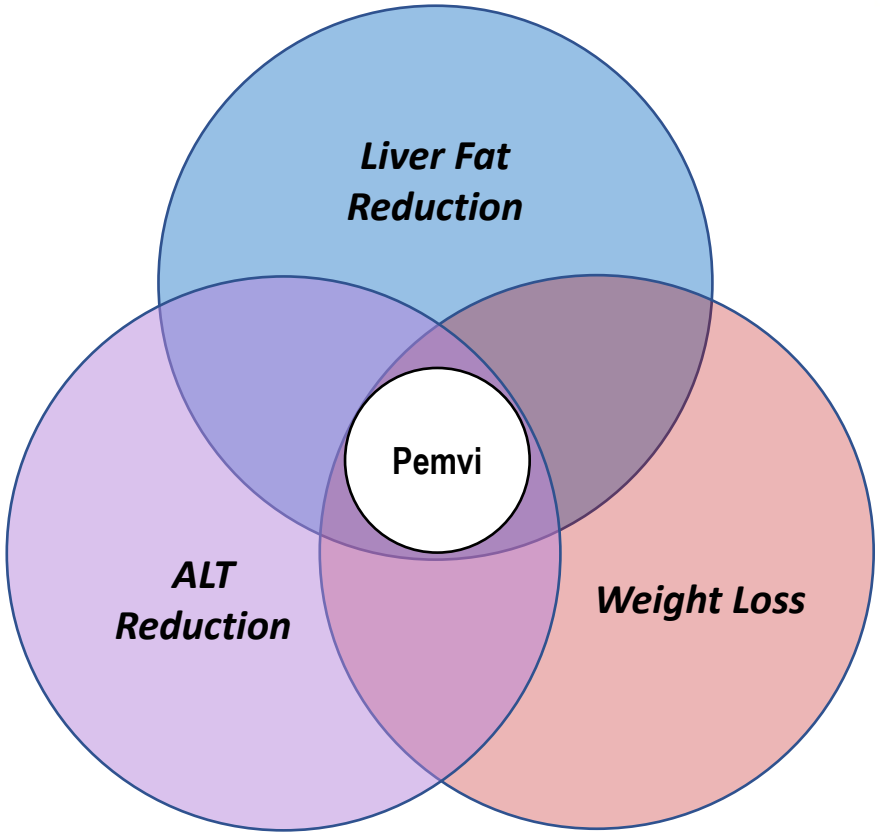
ONLY NASH CANDIDATE IN DEVELOPMENT WITH RAPID EFFECTS ON ALL THREE THERAPEUTIC OBJECTIVES

Efficacy

- 69% relative reduction in liver fat content
- 21% reduction in serum ALT
- 4.3% reduction in body weight

Safety

- Well-tolerated without need for dose titration
- No severe or serious AEs and low rates of AEs leading to treatment discontinuations



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HepTcell: Chronic HBV

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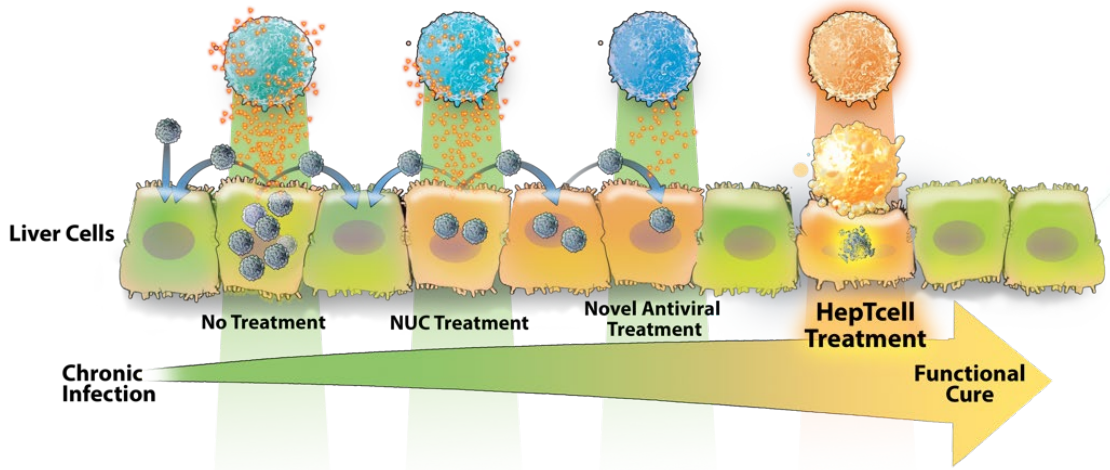
HepTcell: T CELL IMMUNOTHERAPEUTIC FOR CHRONIC HEPATITIS B

CURRENTLY APPROVED HBV THERAPEUTICS DO NOT LEAD TO A CURE

- **~300M**[1] people with chronic HBV infection worldwide with ~**820,000+**[2] deaths/year due to cirrhosis and liver cancer
- Current antivirals prevent disease progression but **rarely clear chronic infection**
- **Breaking T cell immune tolerance is key** to functional cure
- Newer direct-acting antivirals **unlikely to result in immune reactivation alone**
- **HepTcell is designed to "wake up" dormant T-cells** to eliminate infection



[1]https://www.hepb.org/what-is-hepatitis-b/what-is-hepb/facts-and-figures/
[2]https://www.who.int/news-room/fact-sheets/detail/hepatitis-b

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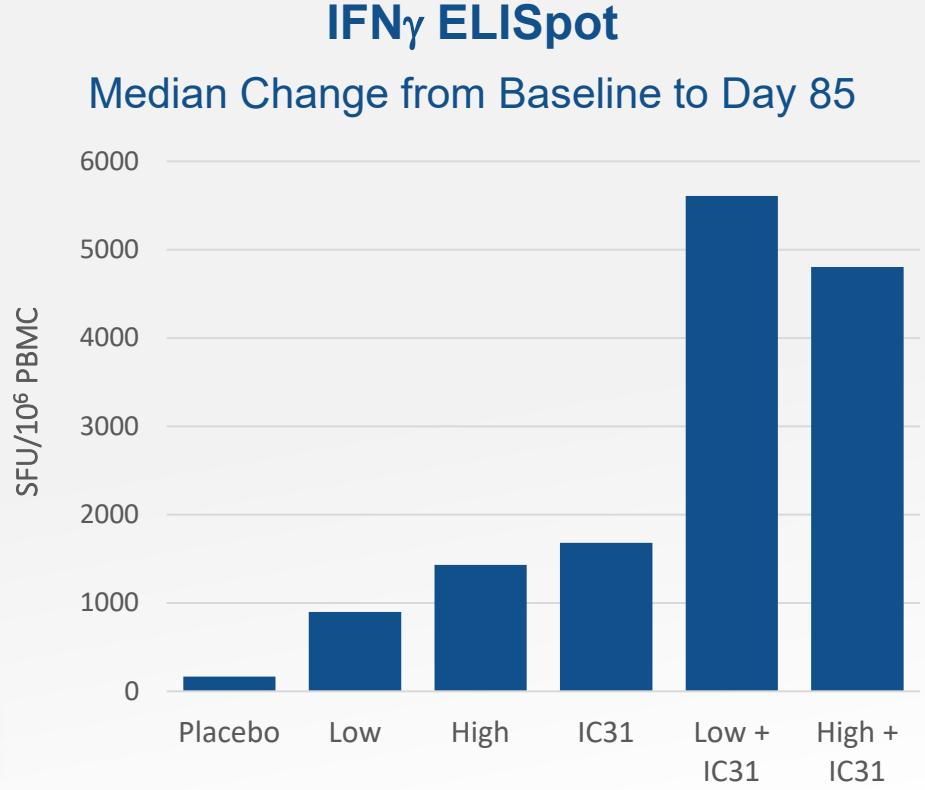
HepTcell: PHASE 1 SAFETY AND IMMUNOGENICITY STUDY

Anti-HBV T-cell Response After 3 Injections



- HepTcell is designed to break immune tolerance in chronic hepatitis B patients
- T cell responses strongest when combined with IC31™ adjuvant
- HepTcell dose and use of adjuvant confirmed for Phase 2 studies

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HepTcell: PHASE 2 CLINICAL TRIAL

MULTINATIONAL, MULTICENTER TRIAL OF HEPTCELL IN INACTIVE CHRONIC HEPATITIS B (CHB)

- Trial designed to evaluate response in inactive CHB population and to model the response to HepTcell in combination therapy with direct acting agents in active CHB population
- 80 patients with HBeAg negative inactive chronic hepatitis B and HBsAg ≤ 100 IU/mL randomized 1:1 to HepTcell or placebo administered every 4 weeks for 24 weeks
- Efficacy endpoints
  - Primary endpoint: proportion of patients with 1.0-log reduction in HBsAg from baseline or HBsAg clearance at Week 24
  - Secondary endpoints: Changes from baseline in HBsAg, HBV DNA, HBcrAg, pg-RNA at Week 24
- Phase 2 data readout of primary endpoint expected H2 2023
- Follow-up phase will assess the safety and durability of response one year after completion of treatment

SUMMARY OF UPCOMING CATALYSTS

1. 24-week Phase 1b NAFLD trial readout in Q4 2022
2. Interim Phase 2 MOMENTUM 24-week weight loss data on subjects in Q1 2023
3. Top line data for Phase 2 HepTcell trial in H2 2023
4. Top line data for Phase 2 MOMENTUM obesity trial in Q4 2023

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THANK YOU

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