ALTIMMUNE, INC. CORPORATE PRESENTATION

March 2024

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 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; and, the 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.

ALTIMMUNE HIGHLIGHTS

Developing next generation peptide therapeutics for obesity and liver diseases

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

$198M cash, cash equivalents and short-term investments at 12/31/2023

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STRONG 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

Raymond Jordt, MBA
Chief Business Officer

Lilly
NEOS Therapeutics
tranzyme pharma
ImQuest BioSciences
Institut Pasteur
ocera
Lyric Pharmaceuticals
SEPRACOR
Wellstat Group of Companies
IMMUNE TARGETING SYSTEMS
Aytu BIOPHARMA
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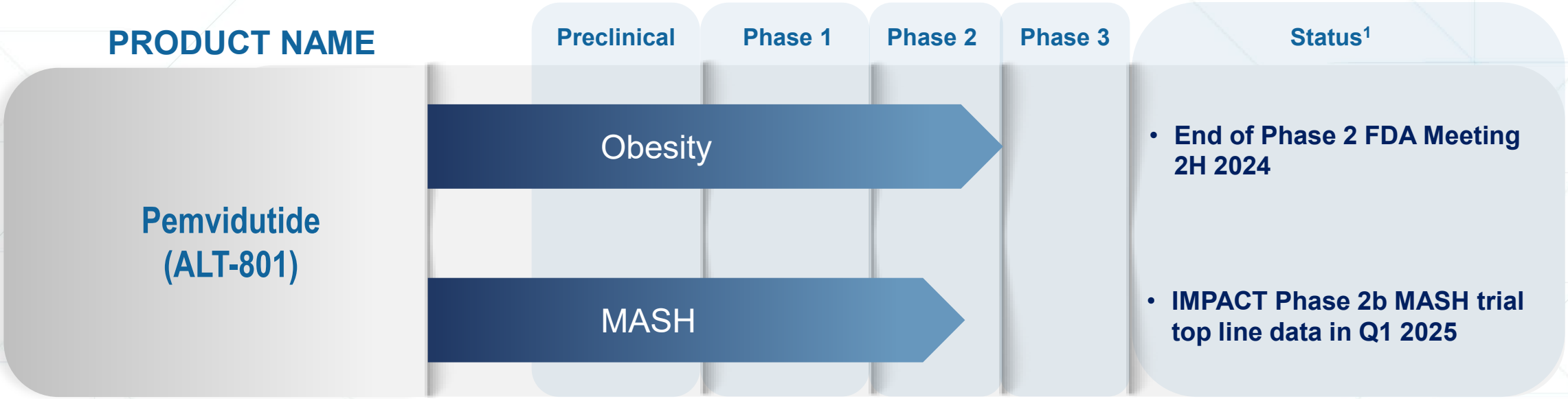
FOCUSED PIPELINE

PEPTIDE-BASED THERAPEUTICS TARGETING OBESITY AND MASH



[1] *Expected Dates*

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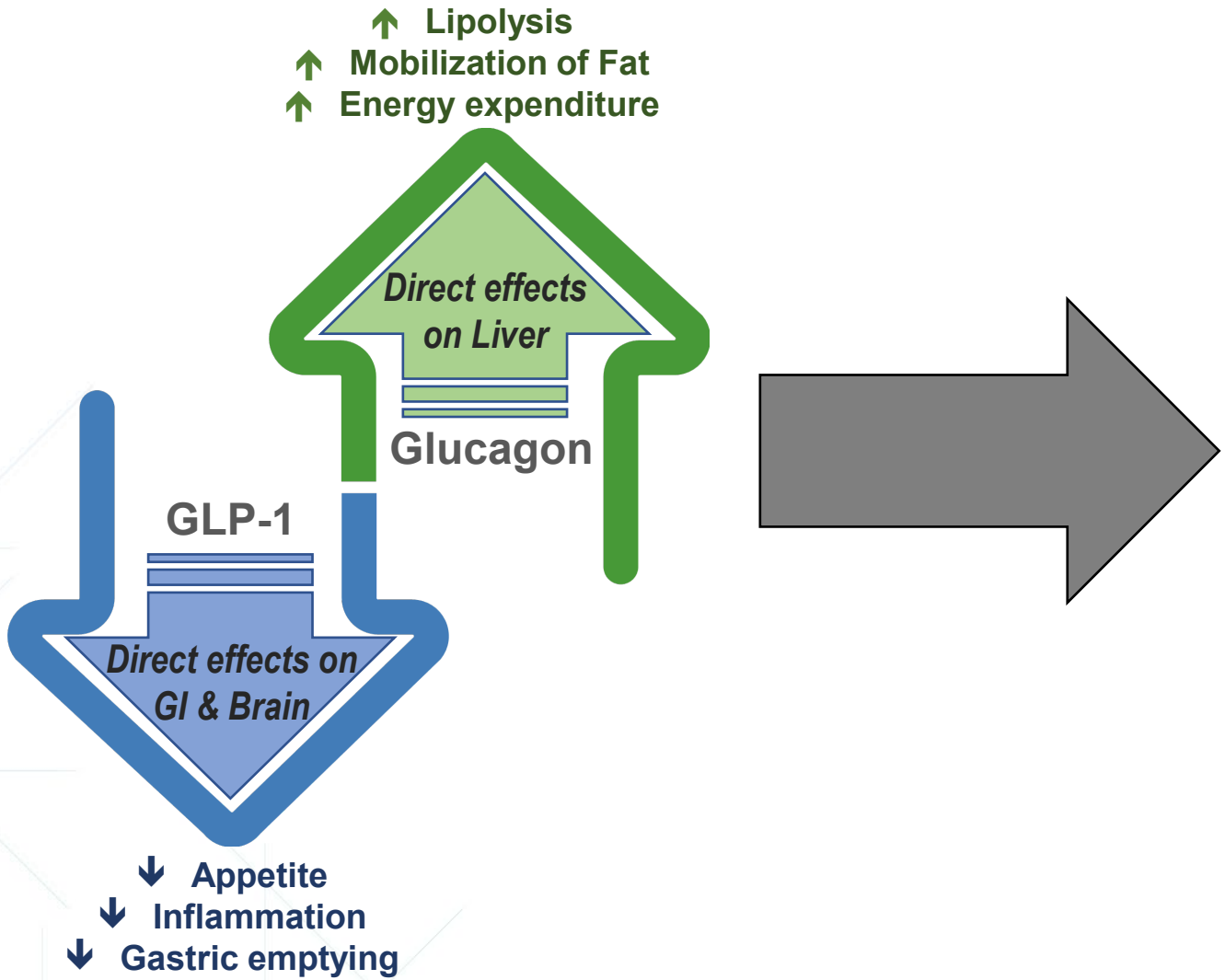
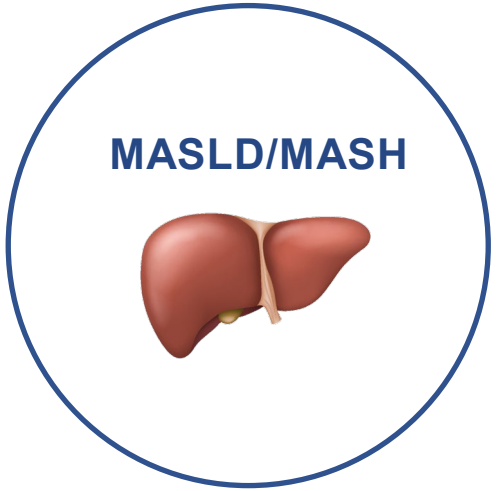
PEMVIDUTIDE MOA IS OPTIMIZED FOR OBESITY AND MASLD/MASH



108m people with obesity in U.S.[1]



16.4m people with MASH in U.S.[2]

[1]US Obesity Population: Hales CM et al. NCHS Data Brief. 2020 Feb;(360):1-8. PMID: 32487284.
[2]US MASH Population: Younossi ZM et all. Gut. 2020;(3):564-568. doi: 10.1136/gutjnl-2019-318813

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US PREVALENCE AND SIGNIFICANCE OF OBESITY COMORBIDITIES

66-70% Dyslipidemia[1,2]

58-75% MASLD[3,4,5]
30-36% MASH[3,4,6]

45-55% Hypertension[1,7]

41-45% Sleep Apnea[8,9]

19-23% T2DM[1,7]

Most significant comorbidities are dyslipidemia, MASLD/MASH, and hypertension

1) Bays, Harold, et. al. (2013) Obesity, adiposity, and dyslipidemia: A consensus statement from the National Lipid Association. Journal of Clinical Lipidology 7(4):304–383.
2) Lim Y, Boster J. Obesity and Comorbid Conditions. [Updated 2023 Feb 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; https://www.ncbi.nlm.nih.gov/books/NBK574535/
3) Quek, Jingxuan, et. al. (2023) Global prevalence of non-alcoholic fatty liver disease and non-alcoholic steatohepatitis in the overweight and obese population:. The Lancet Gastroenterology & Hepatology 8(1):20-30.
4) Vernon, G, et. al. (2011) Systematic review: the epidemiology and natural history of non-alcoholic fatty liver disease and non-alcoholic steatohepatitis in adults. Aliment Pharmacol Ther 34:274–285.
5) Le, Michael, et. al. (2022) 2019 Global NAFLD Prevalence: A Systematic Review and Meta-analysis. Clinical Gastroenterology and Hepatology 2022;20:2809–2817
6) Dufour, Jean-François, et. al. (2021) The global epidemiology of nonalcoholic steatohepatitis (NASH) and associated risk factors–A targeted literature review. Endocrine and Metabolic Science 3.
7) Pantalone KM, et al. Prevalence and recognition of obesity and its associated comorbidities. BMJ Open 2017;7:e017583. doi:10.1136/ bmjopen-2017-017583
8) Romero-Corral, Abel, et. al. (2010) Interactions Between Obesity and Obstructive Sleep Apnea. Chest 137(3): 711-719.
9) Garvey JF, Pengo MF, Drakatos P, Kent BD. Epidemiological aspects of obstructive sleep apnea. J Thorac Dis 2015;7(5):920-929.

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Pemvidutide:
Obesity

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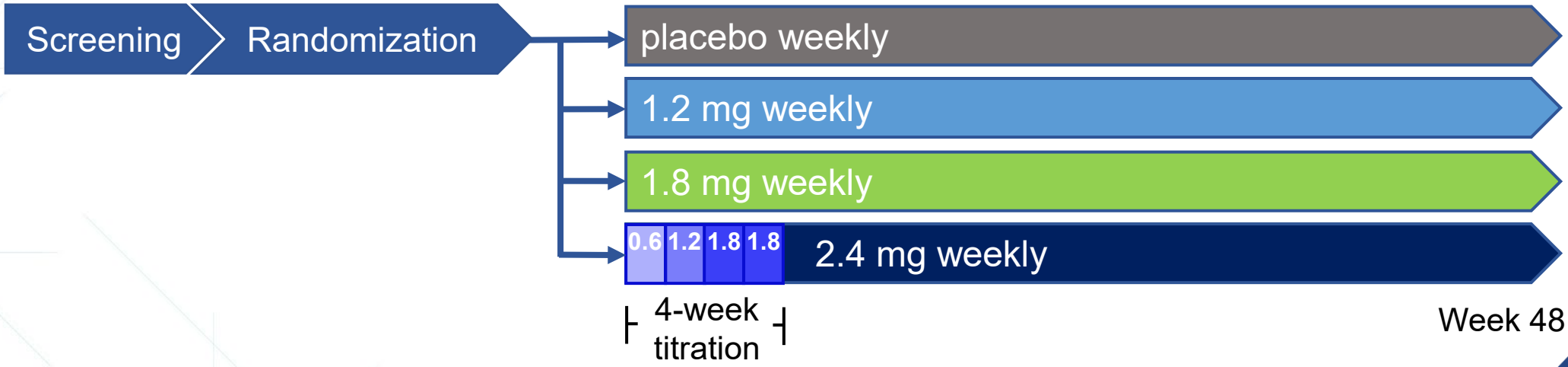
MOMENTUM OBESITY TRIAL DESIGN

- **Phase 2, 48-week trial of pemvidutide in 391 subjects with overweight or obesity**
- **Randomized 1:1:1:1 to 4 treatment arms, stratified by gender and baseline BMI, with standard lifestyle interventions**
- **No or rapid (4 week) dose titration; dose reduction for intolerability was not allowed**



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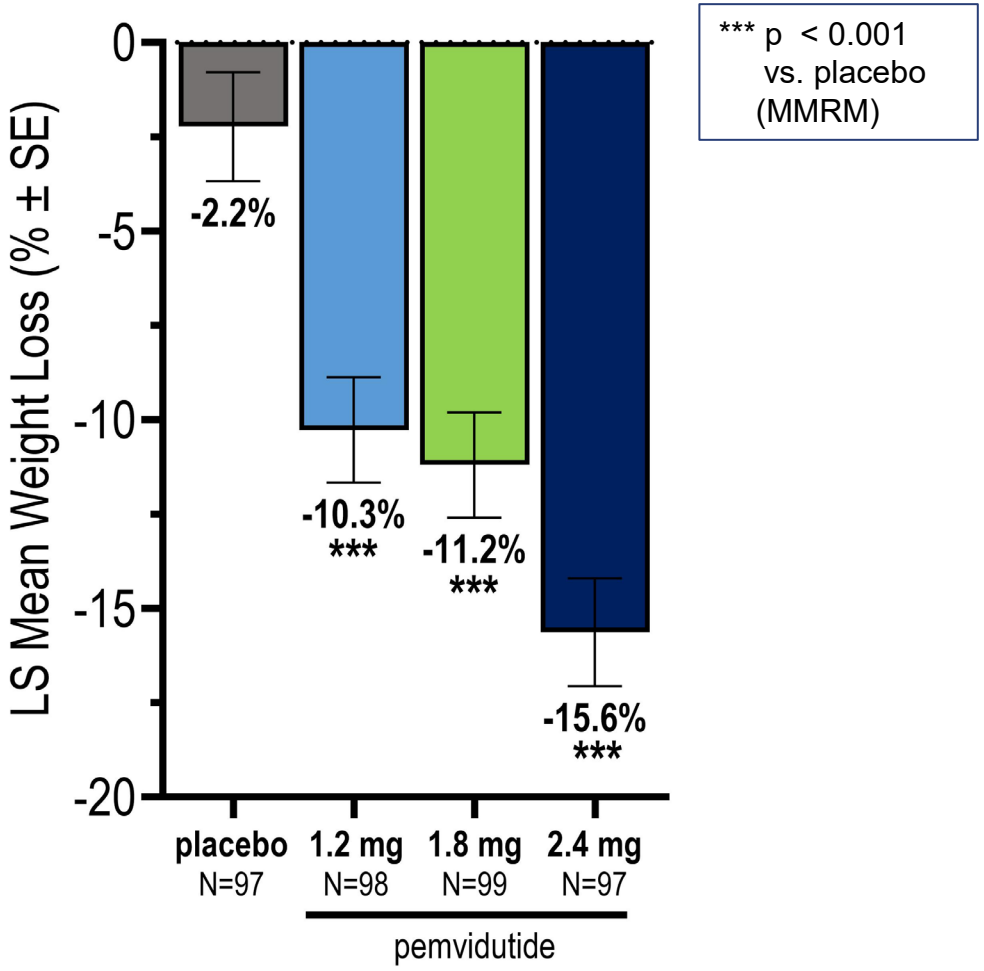
WEIGHT LOSS OF 15.6% ACHIEVED AT WEEK 48 ON 2.4 MG

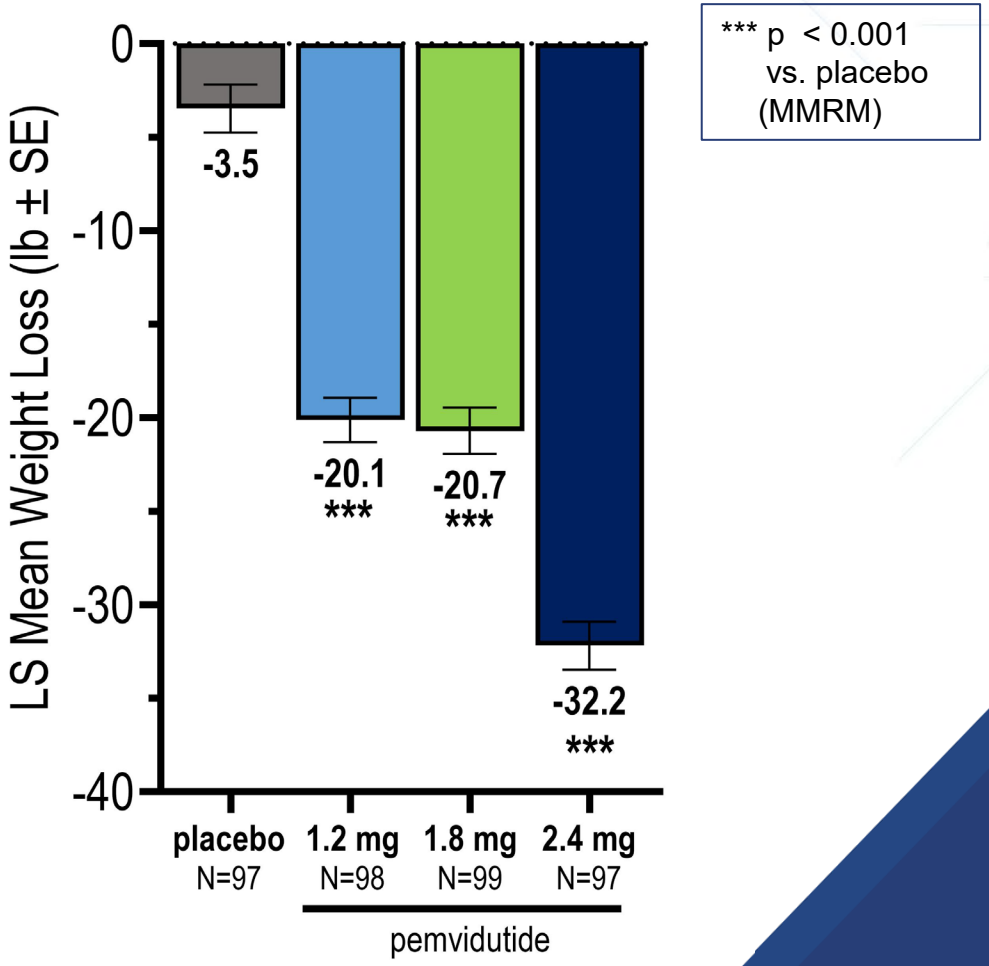
MEAN WEIGHT LOSS OF 32.2 LBS AND MAXIMAL WEIGHT LOSS OF 87.1 LBS

Relative Weight Loss (%)



*** p < 0.001 vs. placebo (MMRM)

Absolute Weight Loss (lbs)



*** p < 0.001 vs. placebo (MMRM)

MMRM, mixed model for repeated measures

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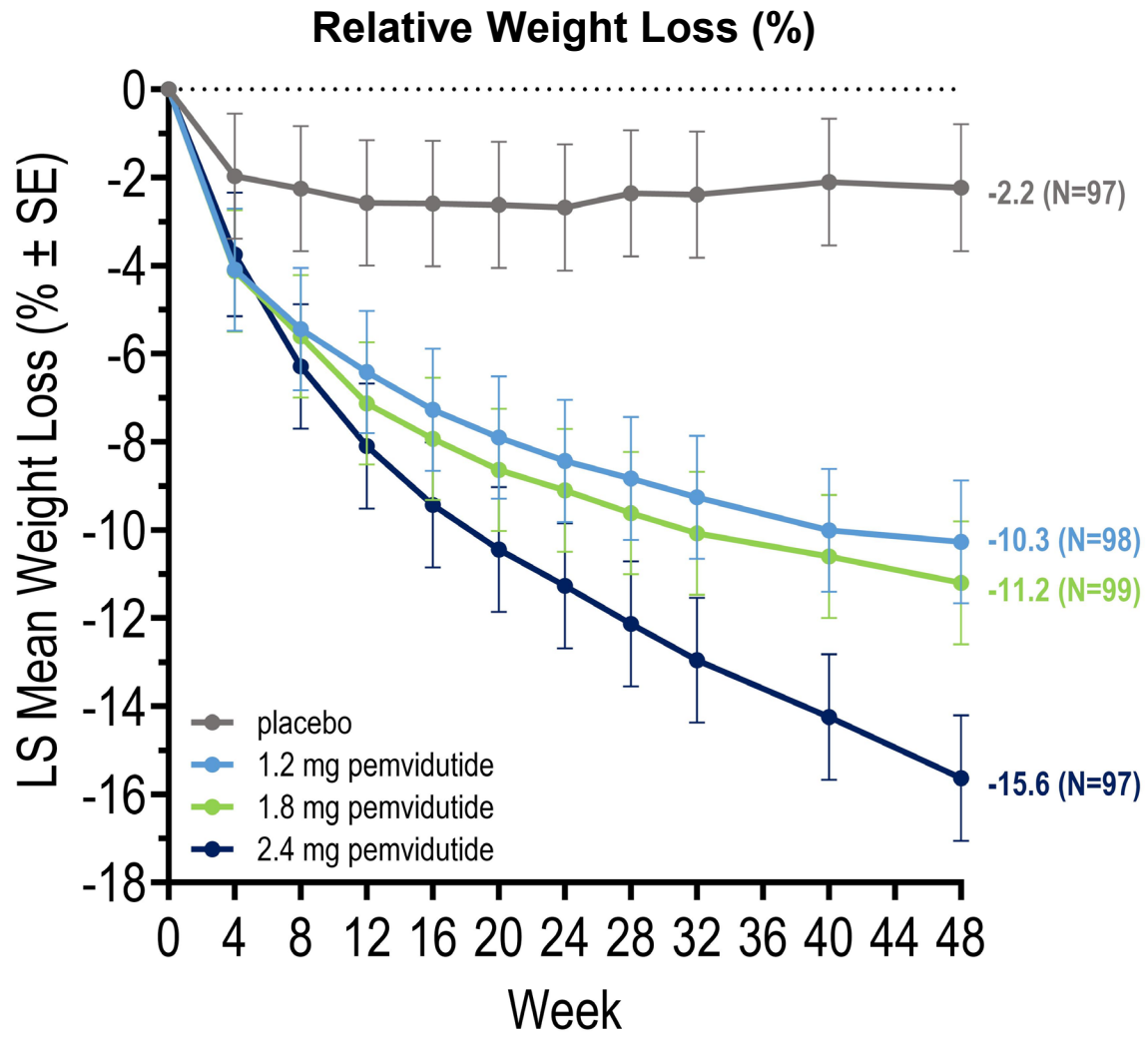
WEIGHT LOSS CONTINUING AT WEEK 48



- Near linear trajectory of weight loss on 2.4 mg at 48 weeks
- Greater weight loss could potentially be realized with longer durations of treatment

MMRM, mixed model for repeated measures

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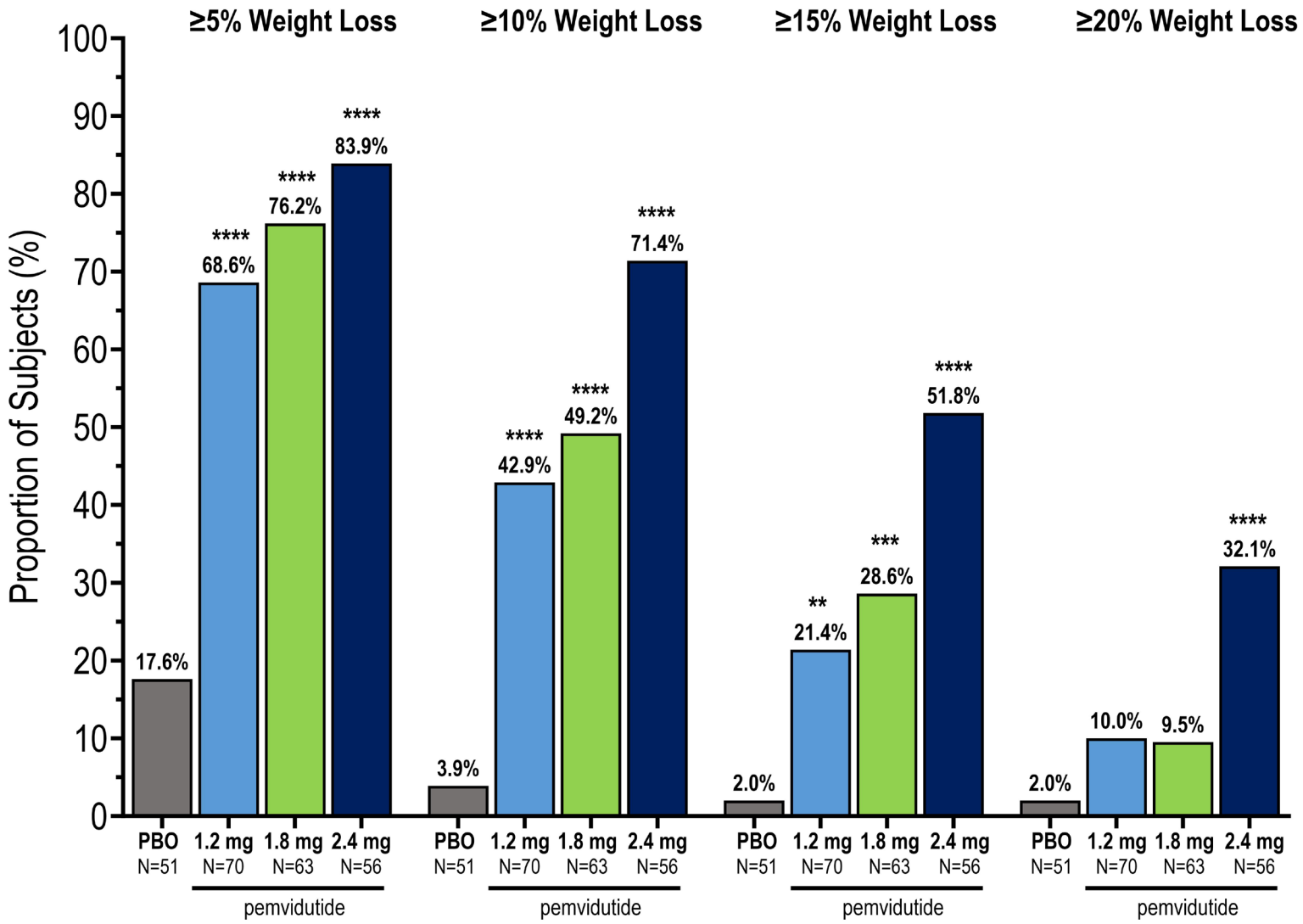
MAJORITY OF SUBJECTS LOST ≥ 15% BODY WEIGHT ON 2.4 MG



** p < 0.005
*** p < 0.001
**** p < 0.0001
vs. placebo (CMH)

CMH, Cochran–Mantel–Haenszel

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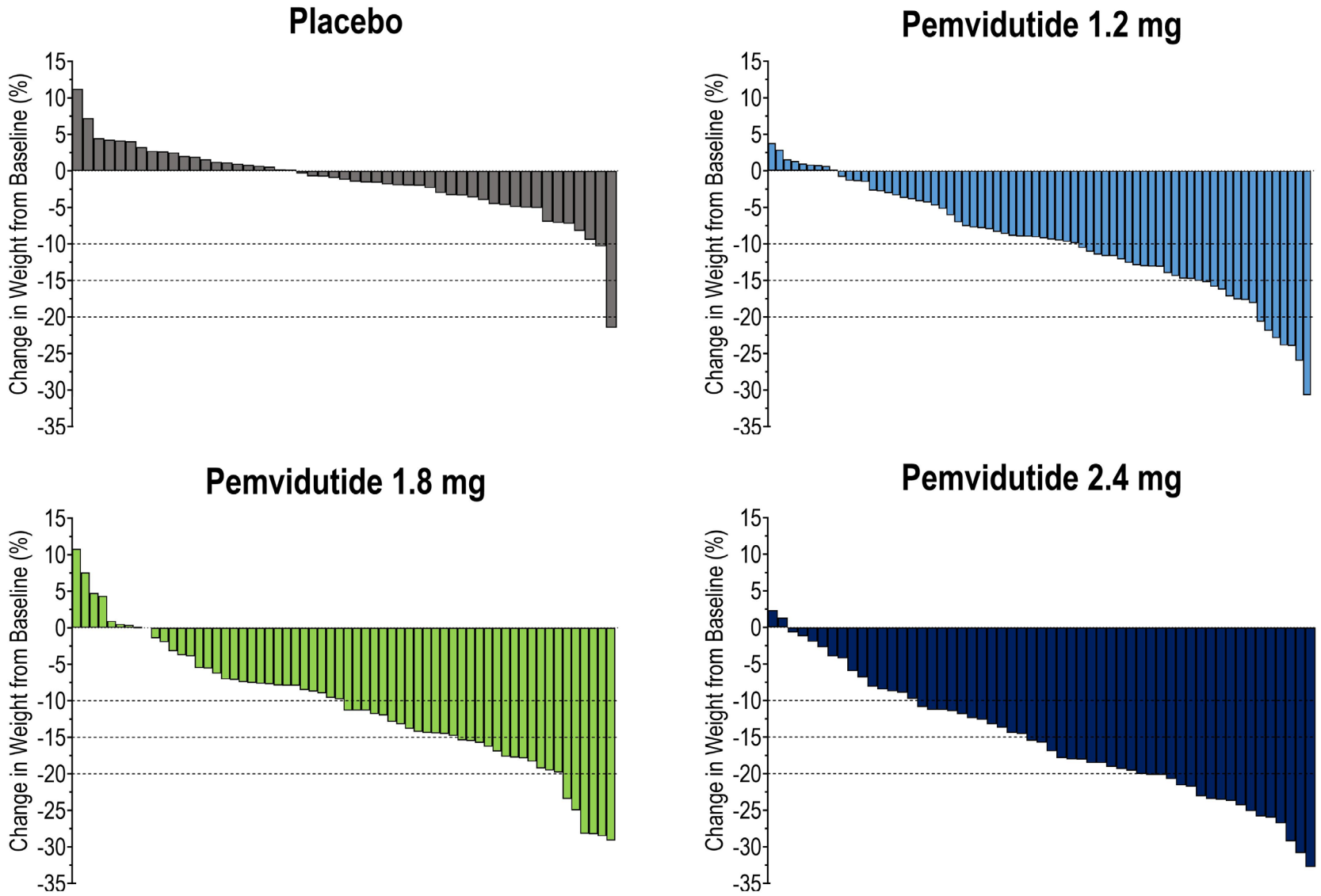
ROBUST WEIGHT LOSS AT ALL PEMVIDUTIDE DOSES

OVER 30% OF SUBJECTS LOST 20% OR MORE BODY WEIGHT ON 2.4 MG



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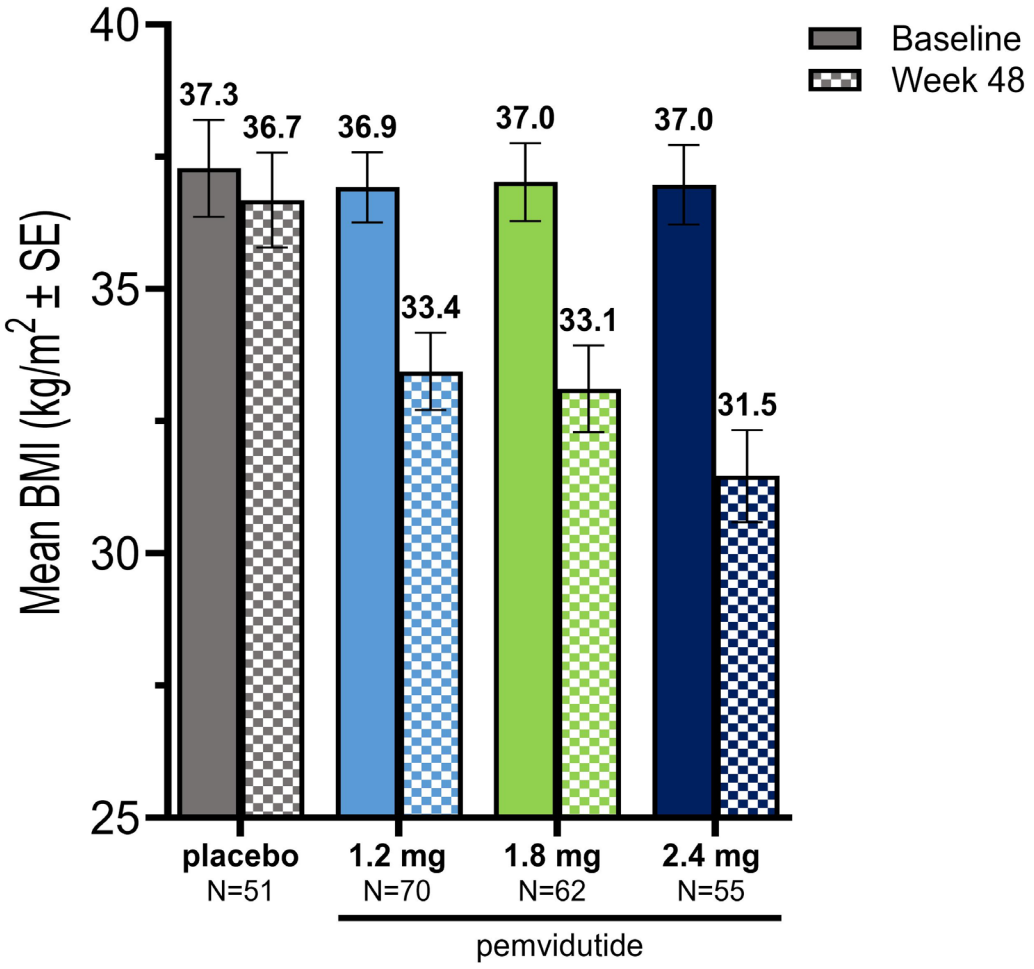
SIGNIFICANT REDUCTIONS IN BMI AT WEEK 48

Mean BMI



BMI Classes

Normal	Over-weight	Obesity Class 1	Obesity Class 2	Obesity Class 3
<25	25-30	30-35	35-40	> 40

- 49% of subjects on 2.4 mg realized a 1-class reduction in BMI
- 29% of subjects on 2.4 mg realized a 2-class reduction in BMI
- 48% of subjects on 2.4 mg with baseline obesity no longer had obesity at the end of treatment

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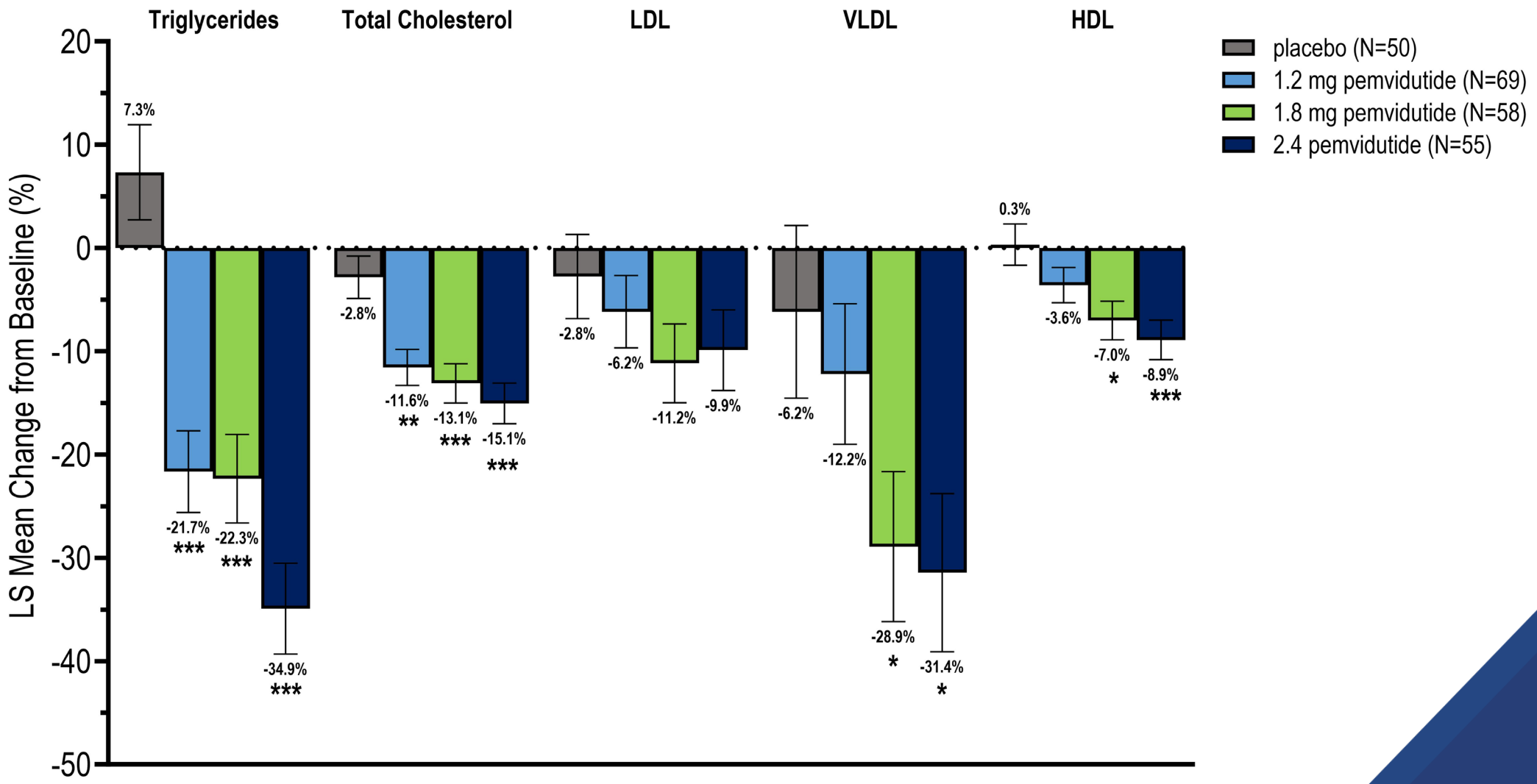
ROBUST REDUCTIONS IN SERUM LIPIDS AT WEEK 48



ANCOVA, analysis of covariance

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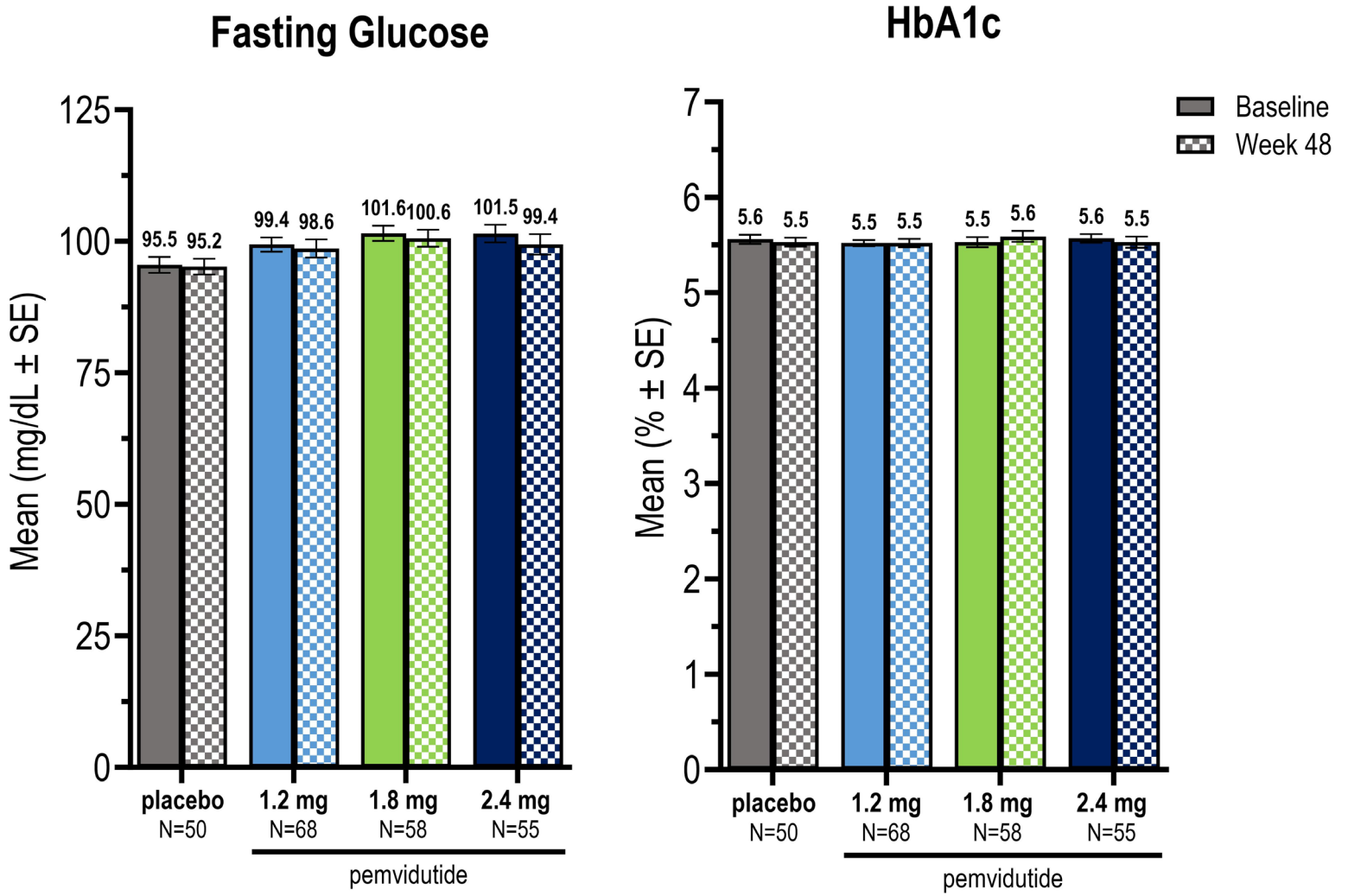
GLUCOSE HOMEOSTASIS MAINTAINED



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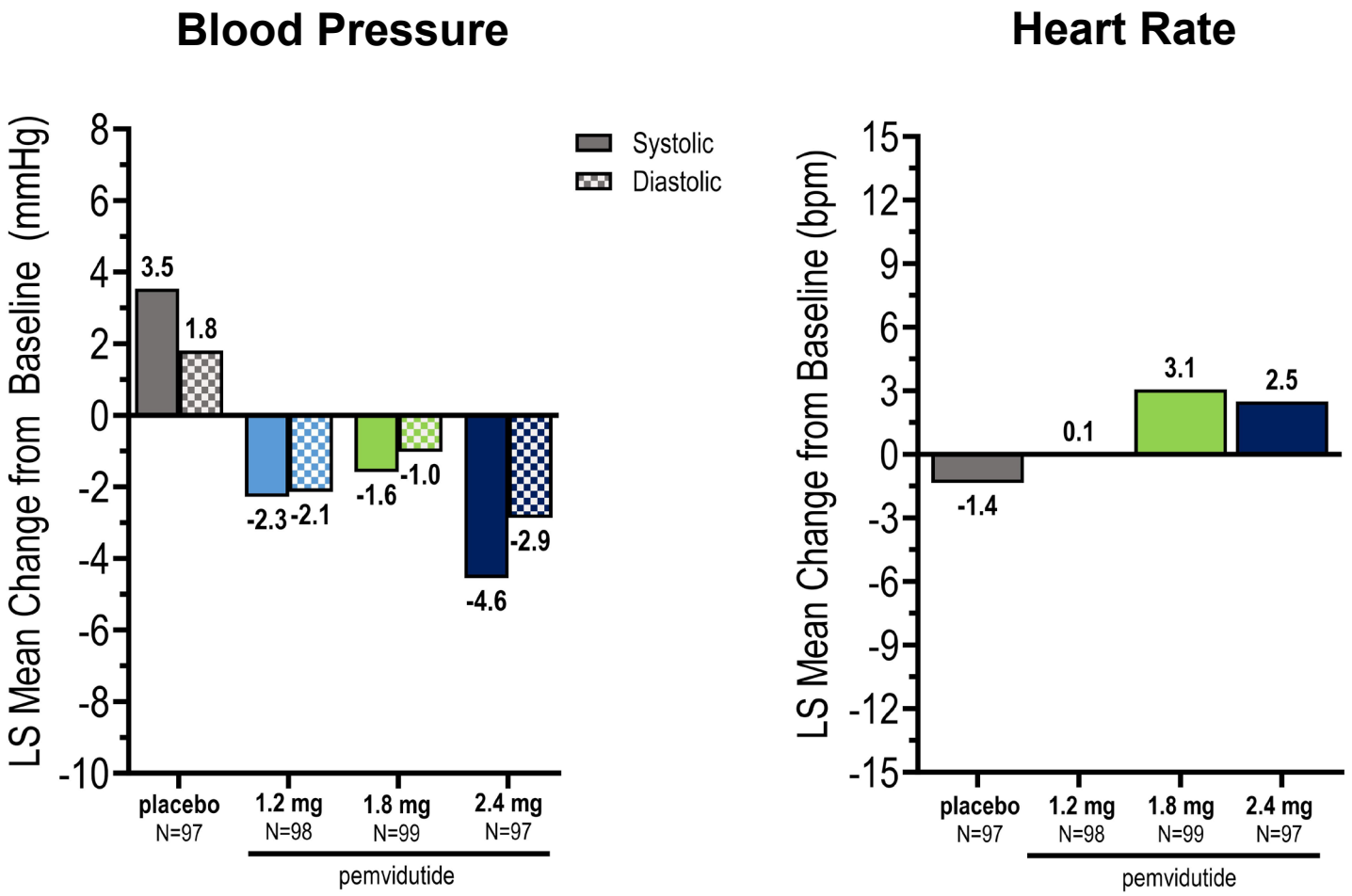
IMPROVEMENTS IN BLOOD PRESSURE WITHOUT CLINICALLY MEANINGFUL INCREASES IN HEART RATE AT WEEK 48



MMRM, mixed model for repeated measures

OVERVIEW OF ADVERSE EVENTS (AES)

Characteristic		Treatment			
		Placebo (N=97)	1.2 mg (N=98)	1.8 mg (N=99)	2.4 mg (N=97)
SAEs related to study drug	N (%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (1.0%)
AEs leading to study drug discontinuation					
All AEs leading to discontinuation	N (%)	6 (6.2%)	5 (5.1%)	19 (19.2%)	19 (19.6%)
Drug-related AEs leading to discontinuation	N (%)	2 (2.1%)	4 (4.1%)	16 (16.2%)	15 (15.5%)
Gastrointestinal (GI) AEs—mainly mild to moderate					
Nausea	N (%)	11 (11.3%)	25 (25.5%)	59 (59.6%)	50 (51.5%)
Vomiting	N (%)	3 (3.1%)	6 (6.1%)	27 (27.3%)	27 (27.8%)
Diarrhea	N (%)	5 (5.2%)	8 (8.2%)	10 (10.1%)	18 (18.6%)
Constipation	N (%)	8 (8.2%)	17 (17.3%)	13 (13.1%)	22 (22.7%)
AEs of Special Interest (AESI)	N (%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Major Adverse Cardiac Events (MACE)	N (%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Cardiac AEs, including arrhythmias	N (%)	4 (4.1%)	3 (3.1%)	4 (4.0%)	3 (3.1%)

- Only 1 drug-related SAE of vomiting
- No AESI or MACE events
- No imbalances in cardiac AEs across treatment groups

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Pemvidutide:
MASH

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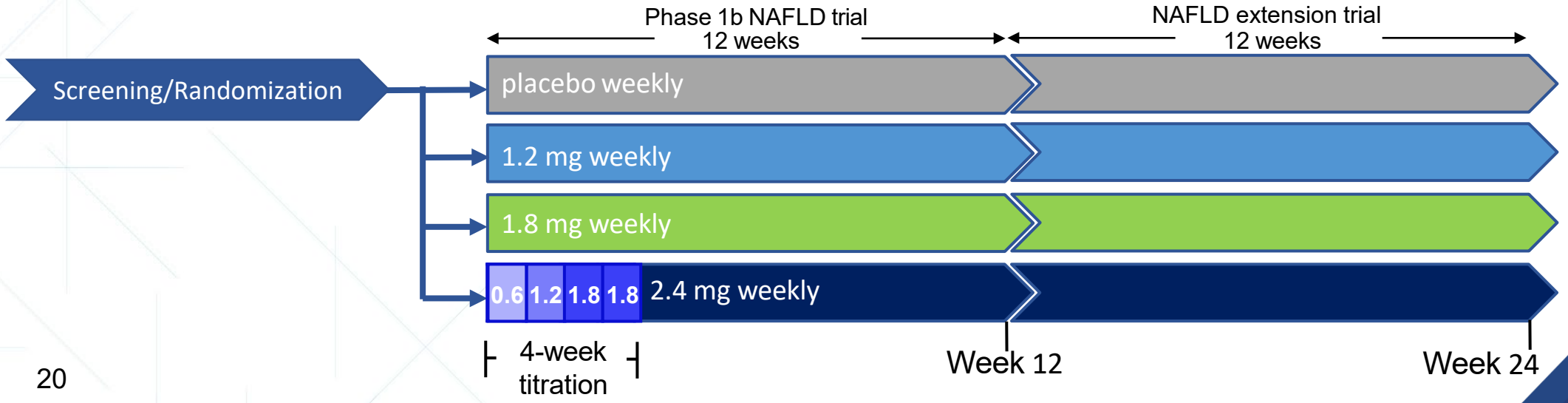
PEMVIDUTIDE PHASE 1b NAFLD (MASLD) TRIAL

- Randomized, placebo-controlled study of pemvidutide in subjects with overweight/obesity and non-alcoholic fatty liver disease (NAFLD)
  - 12-week base study of 94 subjects randomized 1:1:1:1 to pemvidutide or placebo
  - 12-week extension study offered to subjects that completed 12 weeks of dosing (64 subjects participated in extension study for 24-weeks of total dosing)
  - No caloric restriction or lifestyle intervention
- Key Outcomes
  - Reduction in liver fat content, ALT and corrected T1 (cT1)



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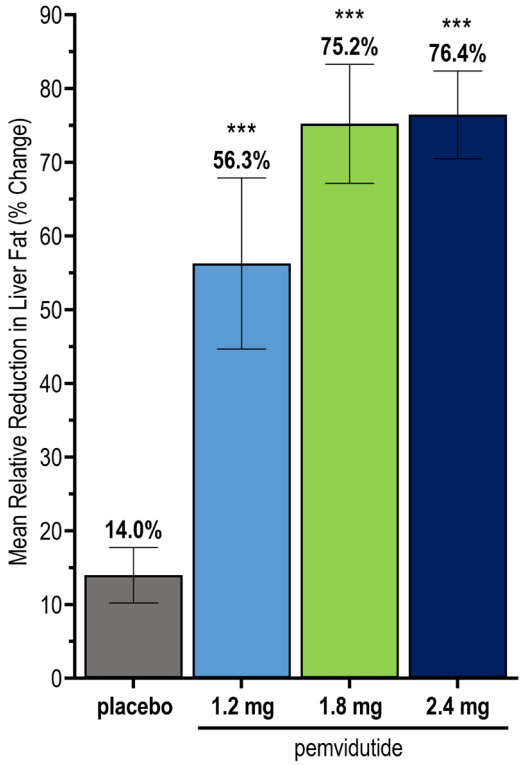
ROBUST REDUCTIONS IN LIVER FAT CONTENT

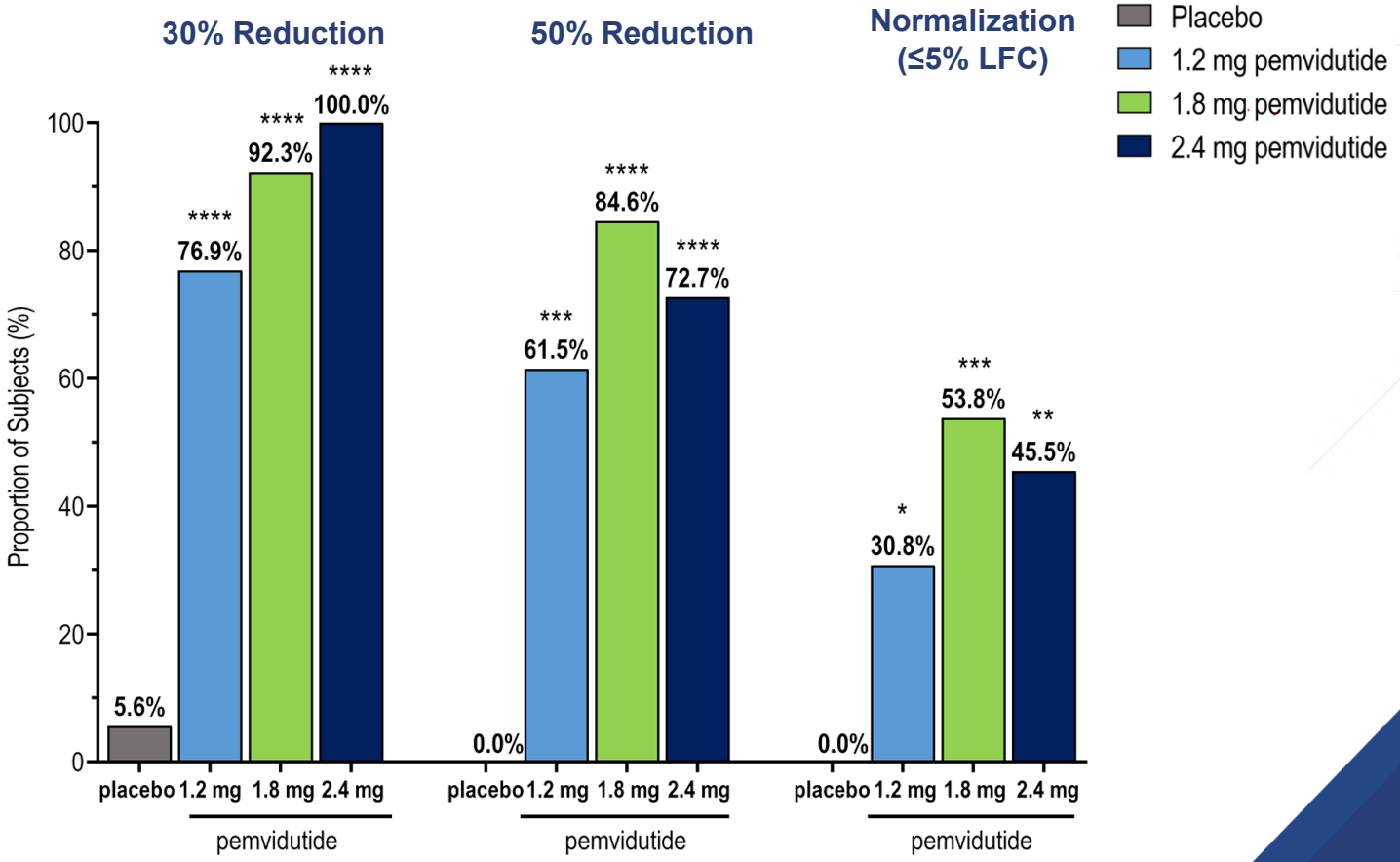
KNOWN TO CORRELATE WITH MASH RESOLUTION AND FIBROSIS IMPROVEMENT

Relative Reduction at Week 24



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

Responder Analyses at Week 24



* p < 0.05, ** p < 0.005, *** p < 0.001, **** p < 0.0001 vs. placebo (CMH[1])

[1] Cochran Mantel Haenszel

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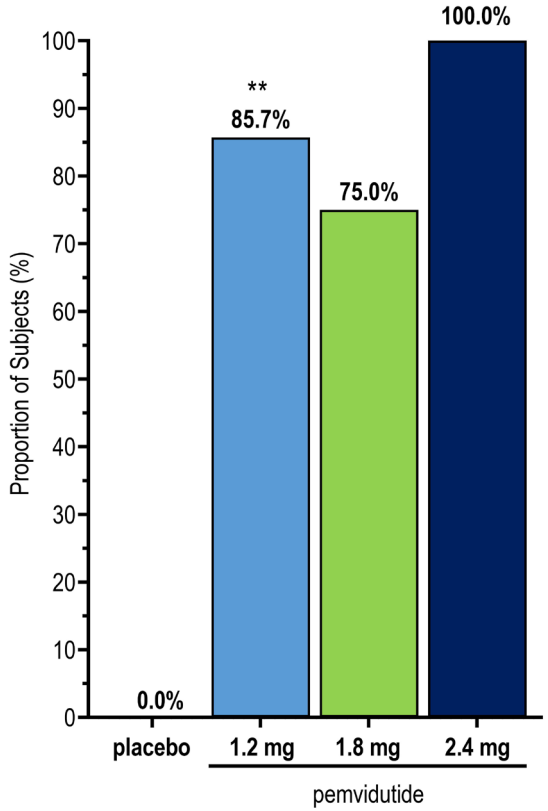
SIGNIFICANT cT1 RESPONSE RATES AND ALT REDUCTIONS

TWO INDEPENDENT INDICATORS OF REDUCED LIVER INFLAMMATION

cT1 Responder Rates[1] at Week 24

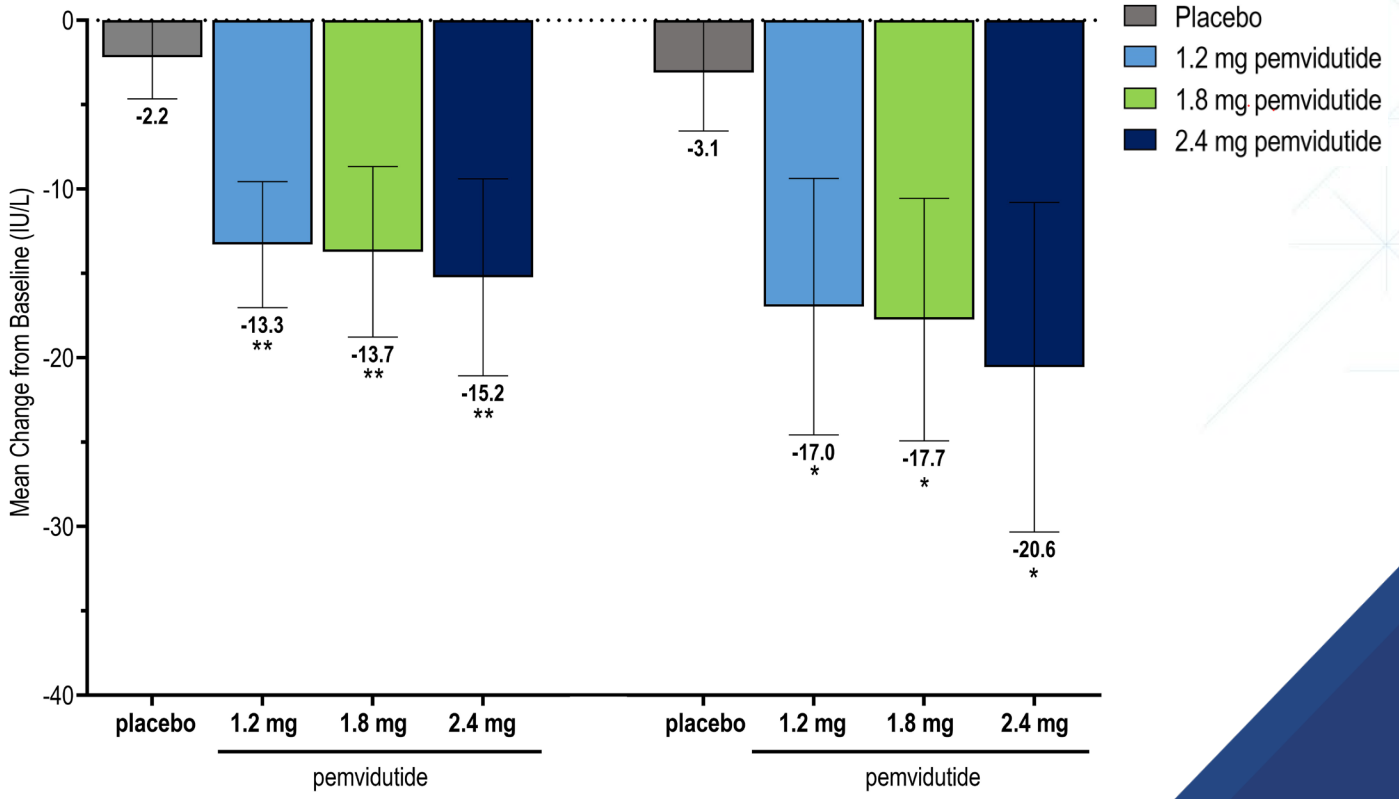


* p < 0.05, ** p < 0.005 vs. placebo (Fisher's Exact Test)

80ms reduction in cT1 has been associated with a 2-point reduction of MASH Activity Score (MAS)[2]

All Subjects

Subjects w/ Baseline ALT ≥ 30IU/L



* p < 0.05, ** p < 0.005 vs. placebo

[1]80ms reduction from baseline; [2]Dennis A, Front Endocrinol 2021

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IMPACT PHASE 2b MASH TRIAL DESIGN

- Biopsy-driven, randomized placebo-controlled trial at approximately 60 U.S. sites
- Approximately 190 subjects with F2 and F3 fibrosis, with and without diabetes
- Subjects randomized 1:2:2 to 1.2 mg pemvidutide, 1.8 mg pemvidutide, or placebo
- Dual endpoints of either MASH resolution or fibrosis improvement at 24 weeks
- Subjects followed for additional 24 weeks to a total of 48 weeks for assessment of safety and additional biomarker responses
- Top-line results expected in Q1 2025

PEMVIDUTIDE

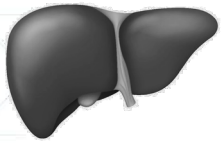
HIGHLY DIFFERENTIATED THERAPEUTIC FOR BOTH OBESITY AND MASH

WEIGHT LOSS

- Robust mean weight loss of 15.6% on pemvidutide 2.4 mg at Week 48
- Over 30% of subjects lost ≥ 20% body weight on 2.4 mg at Week 48
- Continued linear weight loss trajectory on 2.4 mg at Week 48

LIPIDS AND CARDIOVASCULAR EFFECTS

- Substantial reductions in total cholesterol, LDL, triglycerides
- Clinically meaningful reductions in blood pressure



REDUCTION IN LIVER FAT, LIVER INFLAMATION & LIVER FIBROSIS

- Class leading rapid and robust liver fat reduction of 75% at 24 weeks
- ~50% liver fat normalization by Week 24
- cT1 response observed in >80% subjects by Week 12

SAFETY

- Gastrointestinal adverse event rates similar to other incretin agents
- No imbalance of cardiac AEs, including arrhythmias
- No meaningful increases in heart rate

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PEMVIDUTIDE TARGET PROFILE

>>15% Weight Loss	Significant Reductions in LDL, TG, and Total-Cholesterol	Class-Leading Liver Fat Reduction (>70%)	Reductions in Blood Pressure	No Material HR Elevations; No Imbalances of Arrhythmias	Promise to be Most Tolerable
↓	↓	↓	↓	↓	↓
OBESITY	**DYSLIPIDEMIA**	**MASH**	**HYPERTENSION**	**CV SAFETY**	**TOLERABLE**

Pemvidutide is targeting the largest segments of the obesity and MASH populations

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SUMMARY OF UPCOMING CATALYSTS

1

Enrollment completed in Phase 2b IMPACT MASH trial Q3 2024

2

End of Phase 2 FDA Meeting on MOMENTUM obesity trial in 2H 2024

3

Top line data for Phase 2b IMPACT MASH trial in Q1 2025

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THANK YOU

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