ALTIMMUNE, INC. CORPORATE PRESENTATION

August 2024

altimmune | NASDAQ: ALT

Forward-looking statements

Safe-Harbor Statement

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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 MASH

$164.9M cash, cash equivalents and short-term investments at 6/30/2024

STRONG MANAGEMENT TEAM

Vipin K. Garg, PhD
President & CEO

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

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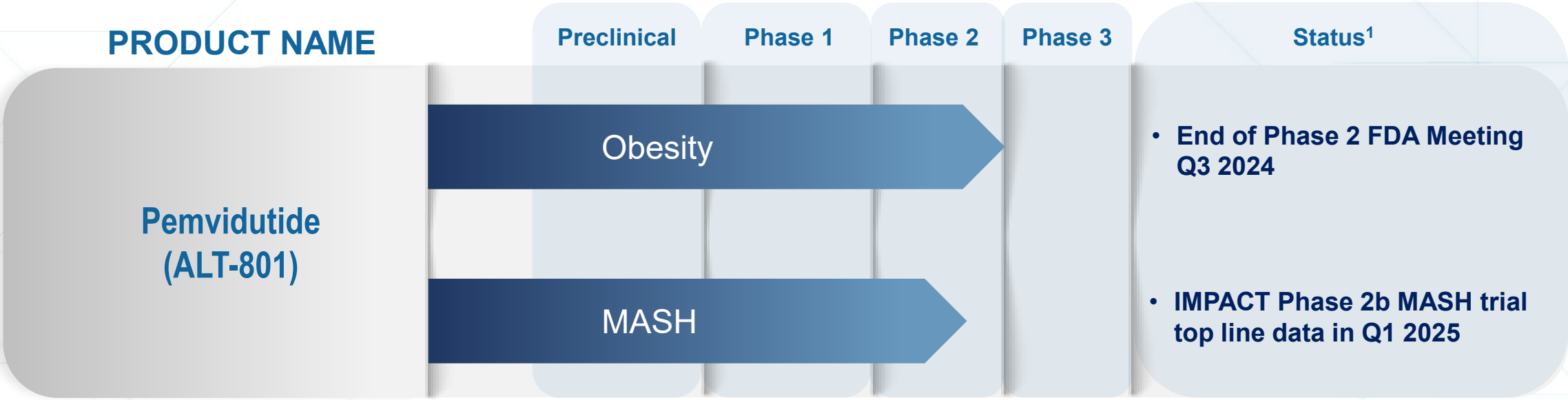
FOCUSED PIPELINE

PEPTIDE-BASED THERAPEUTICS TARGETING OBESITY AND MASH



[1] *Expected Dates*

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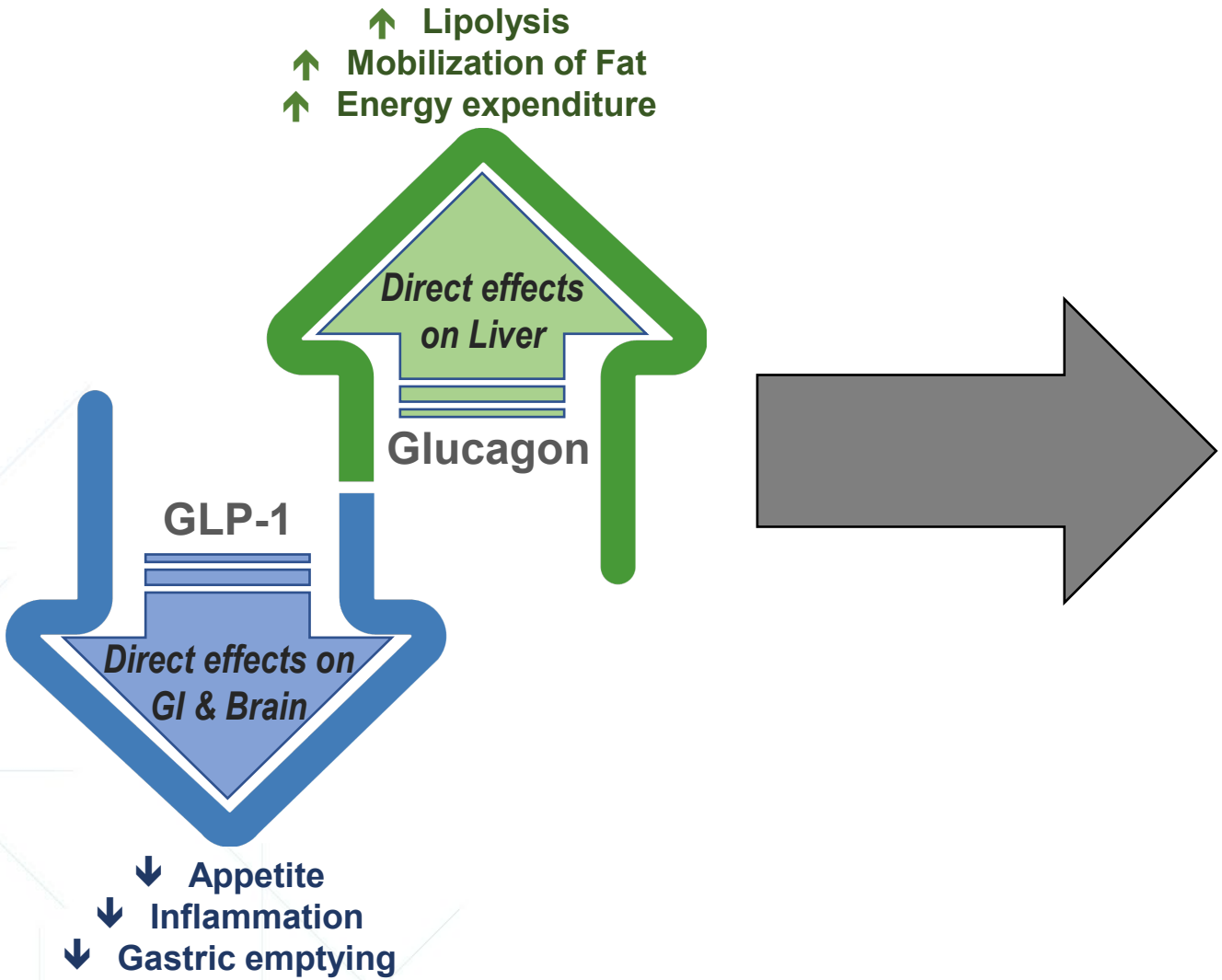
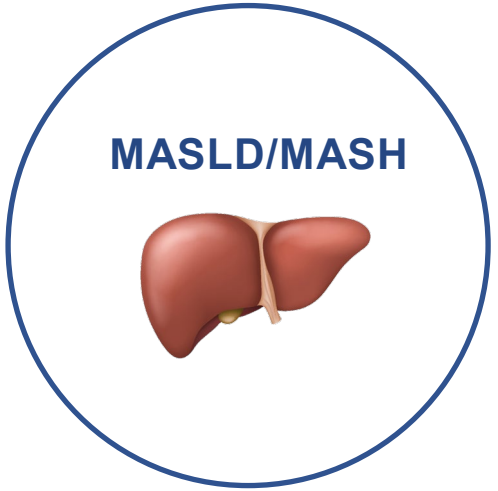
PEMVIDUTIDE MOA IS OPTIMIZED FOR OBESITY AND MASLD/MASH



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



>20m 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: Estes, C., et. al. Hepatology 2018; 67(1):123-133. doi: 10.1002/hep.29466

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US PREVALENCE AND SIGNIFICANCE OF OBESITY COMORBIDITIES

66-70% Dyslipidemia[1,2]

58-75% MASLD[3,4,5]
15-36% 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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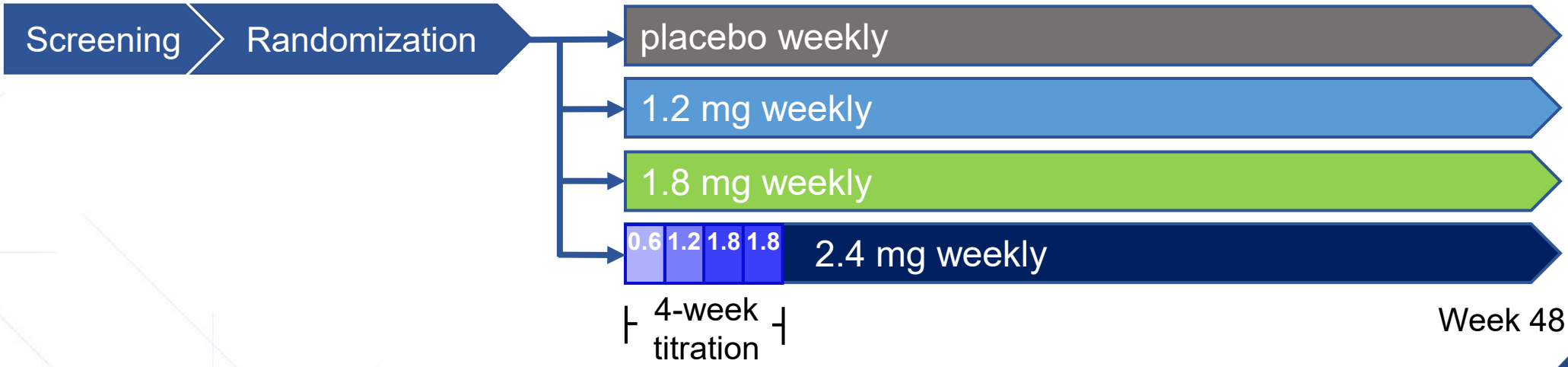
MOMENTUM OBESITY TRIAL DESIGN

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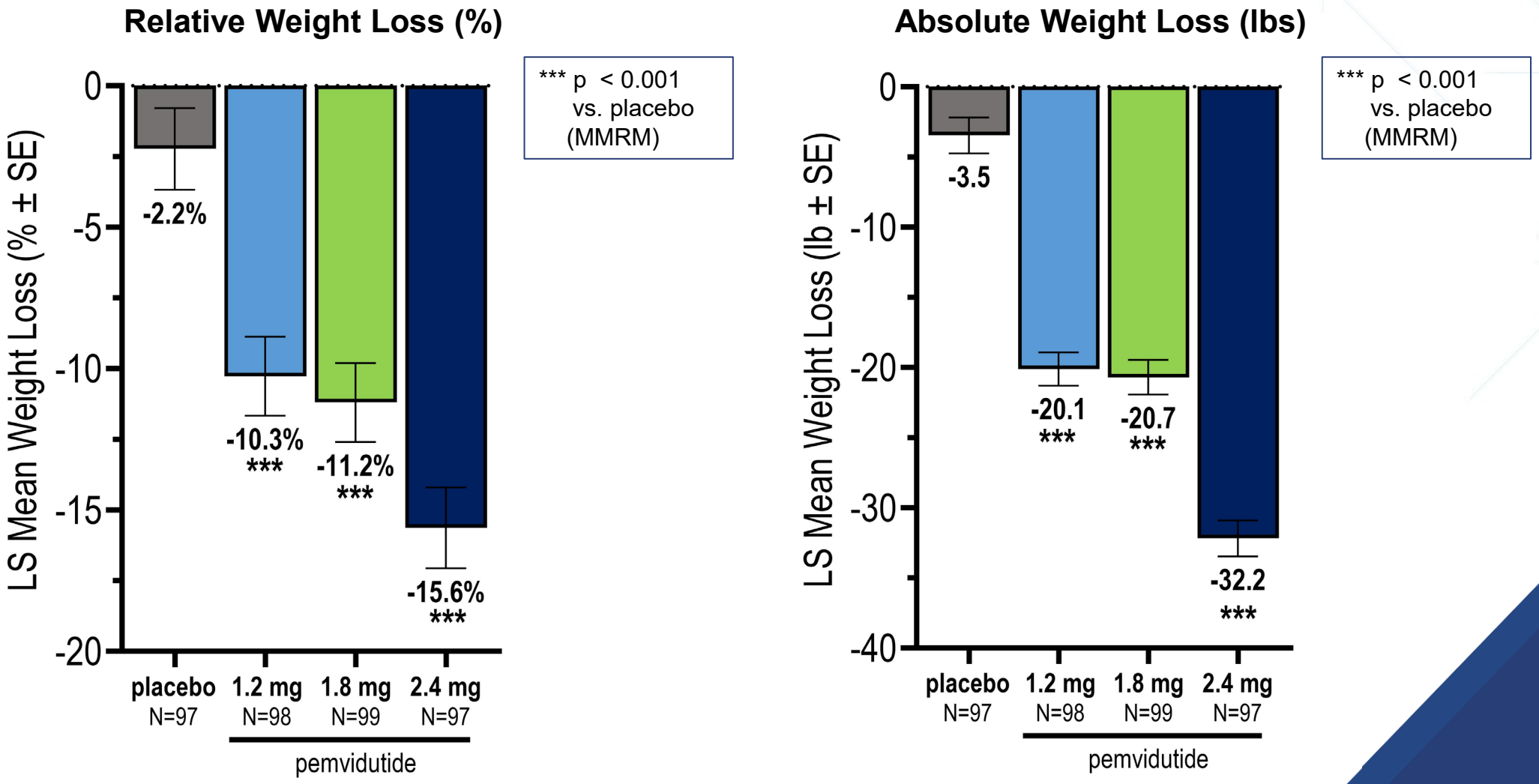
WEIGHT LOSS OF 15.6% ACHIEVED AT WEEK 48 ON 2.4 MG

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



MMRM, mixed model for repeated measures

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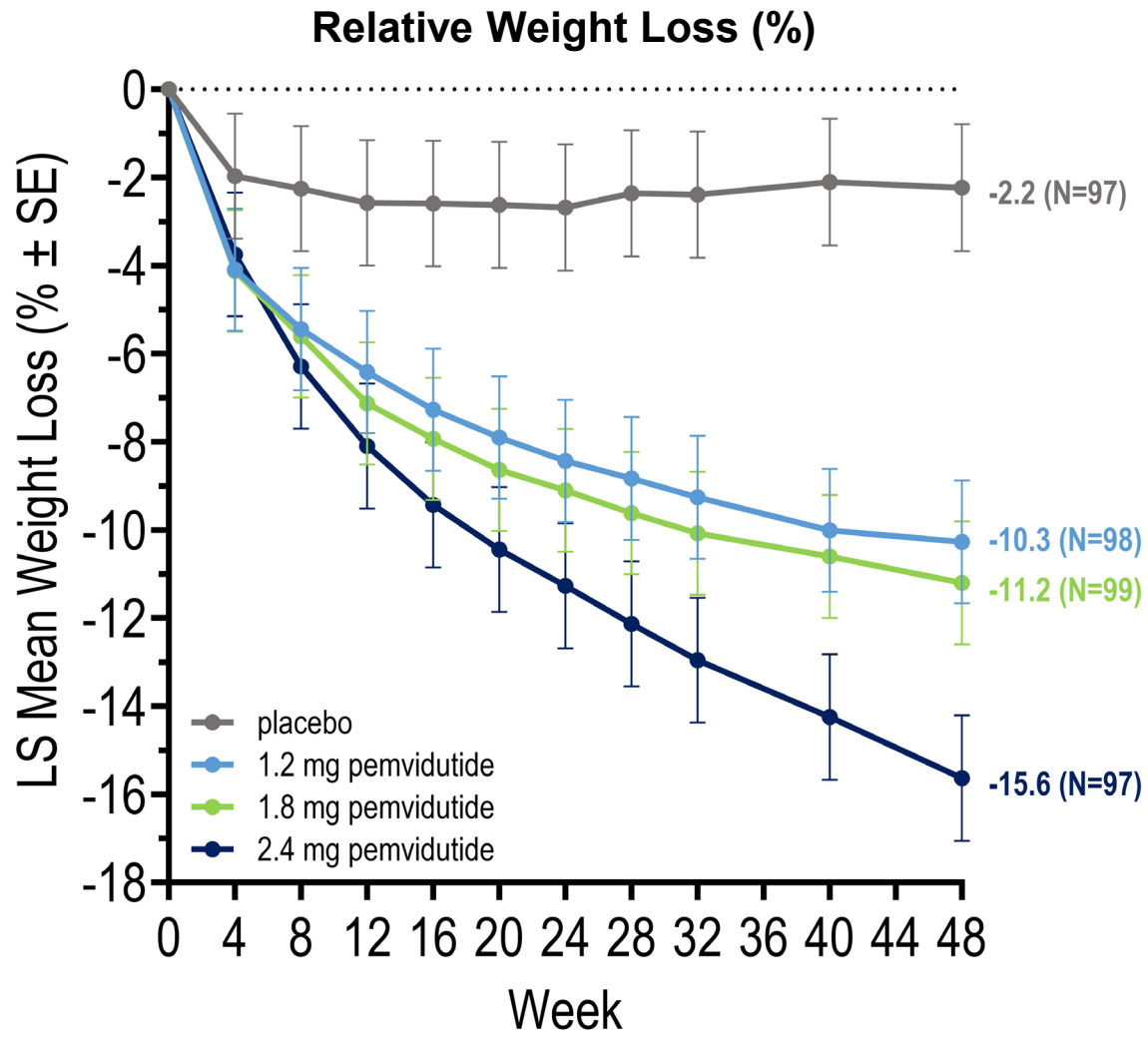
WEIGHT LOSS CONTINUING AT WEEK 48



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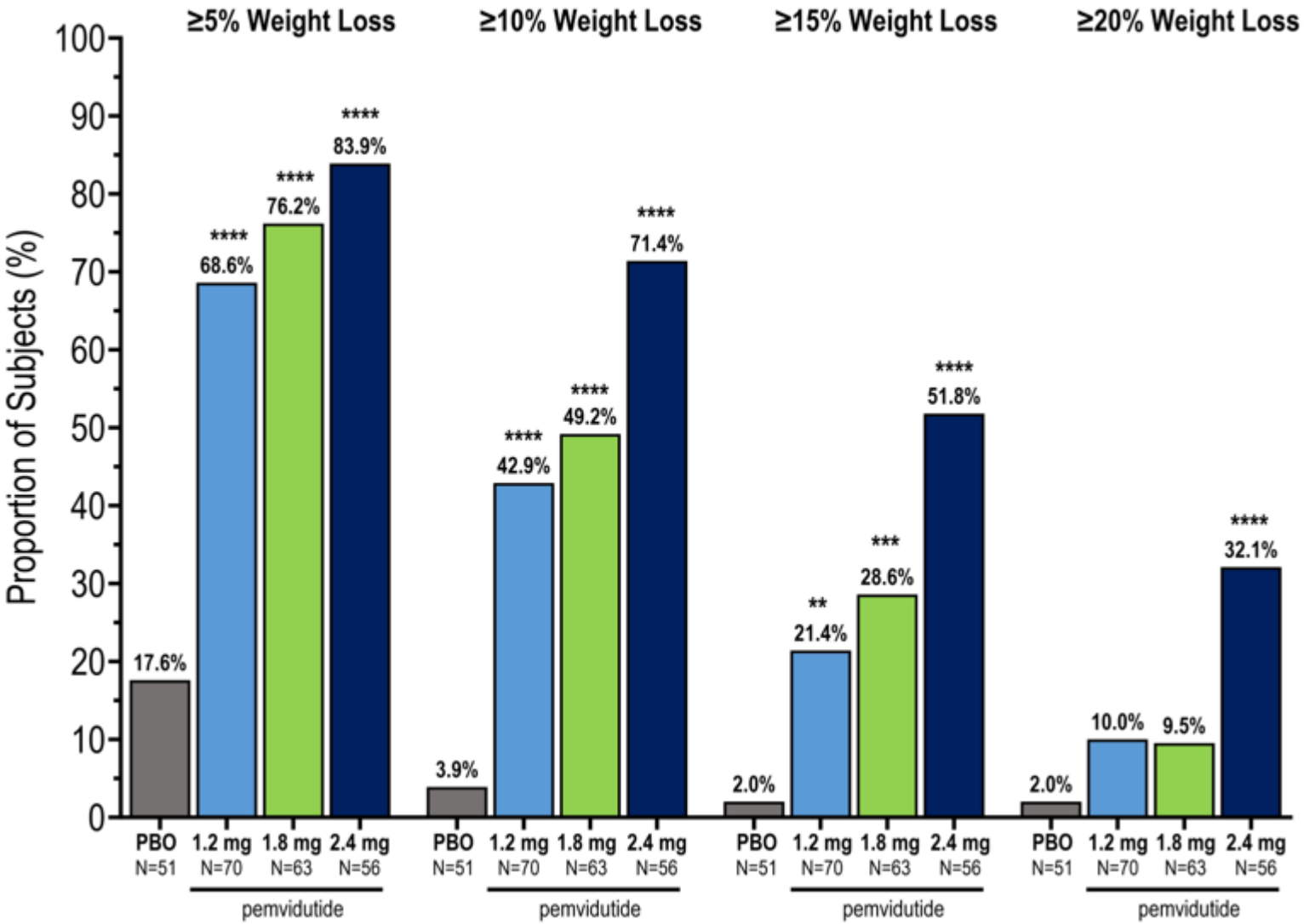
MAJORITY OF SUBJECTS LOST ≥ 15% BODY WEIGHT ON 2.4 MG



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

CMH, Cochran–Mantel–Haenszel

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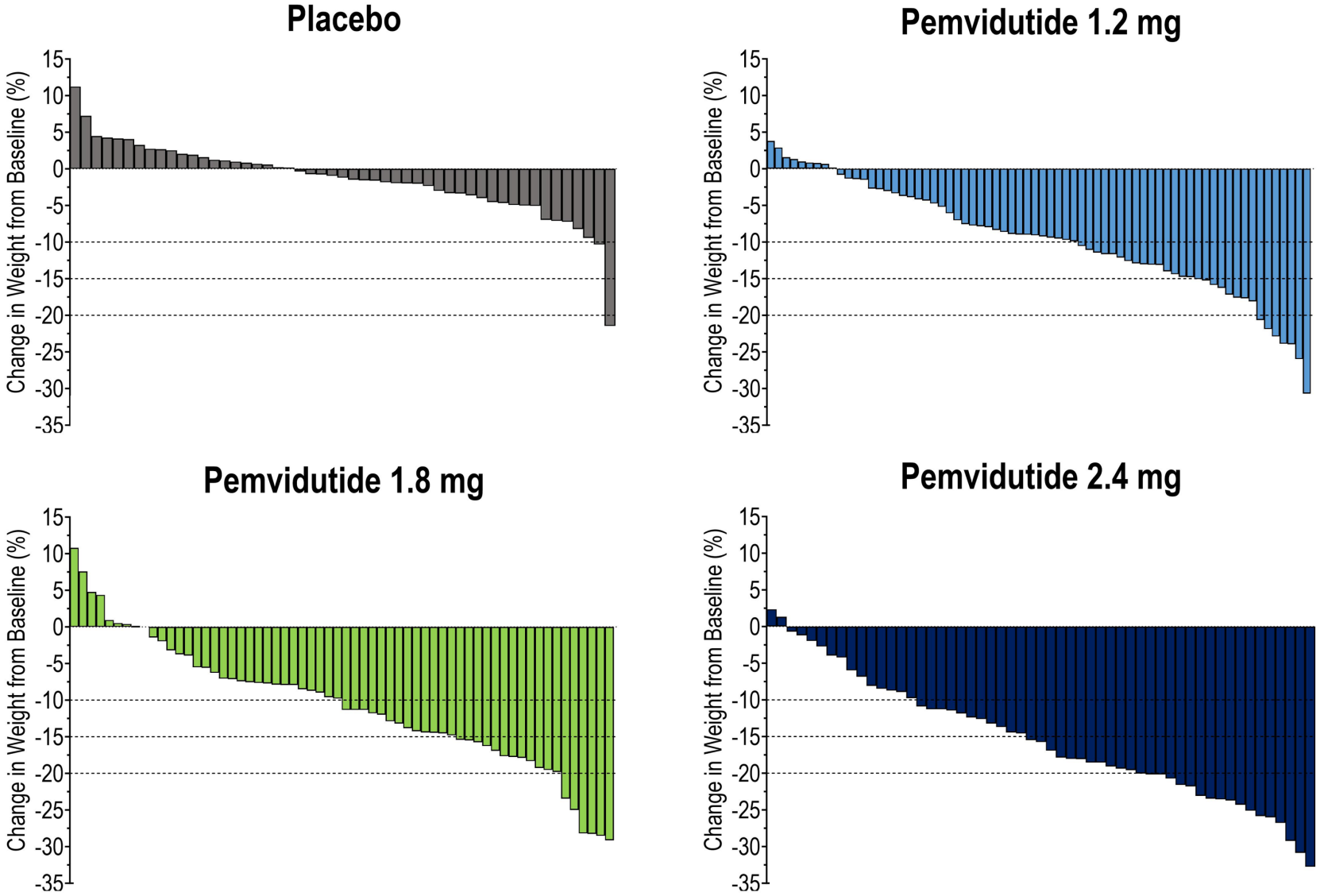
ROBUST WEIGHT LOSS AT ALL PEMVIDUTIDE DOSES

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



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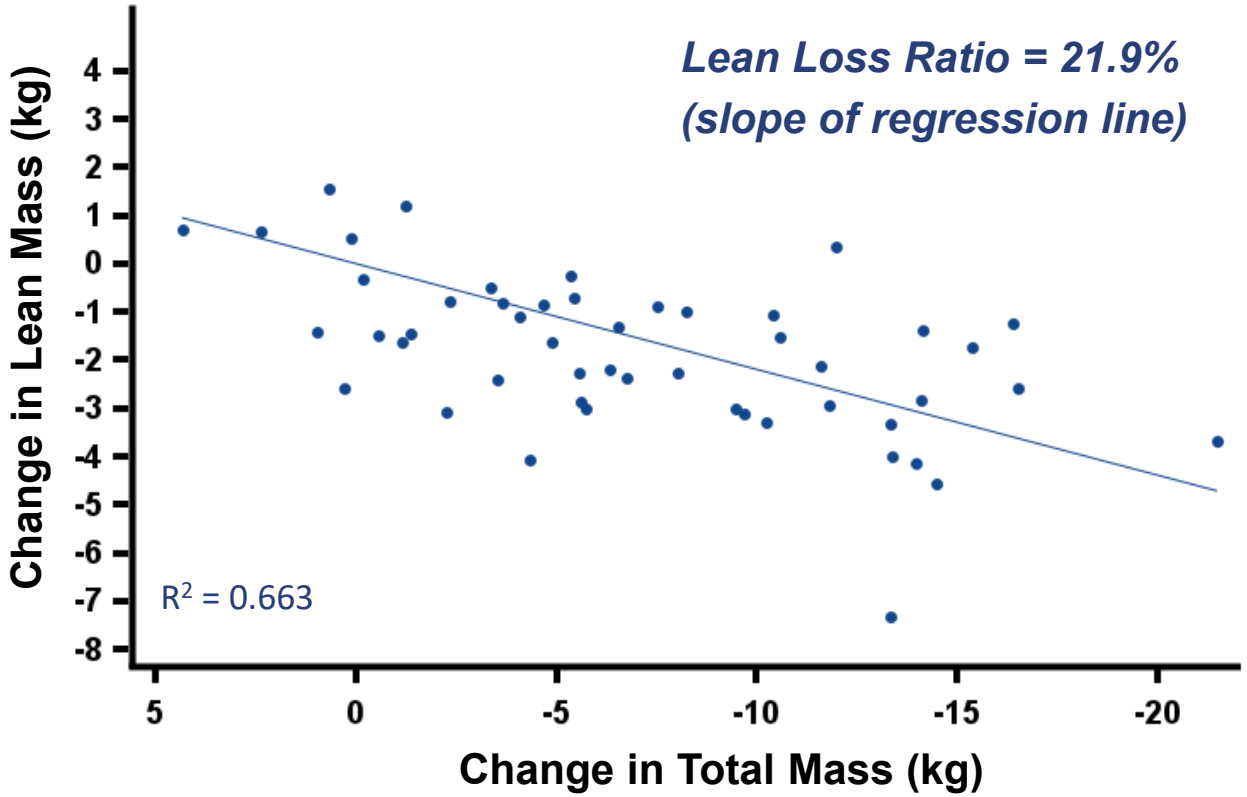
PEMVIDUTIDE– ONLY 21.9% OF WEIGHT LOSS FROM LEAN MASS

MRI-BASED BODY COMPOSITION ANALYSIS SUBSTANTIATES QUALITY OF WEIGHT LOSS WITH PEMVIDUTIDE TREATMENT

Regression Analysis of Change in Lean Mass vs. Change in Total Mass
Pemvidutide-treated Subjects, Full Analysis Set (n = 50)



- Lean mass loss of ~25% is an expected outcome of diet and exercise
- However, other incretin therapy has been associated with up to 40% lean mass loss[1]
- Weight loss therapies that minimize loss of lean mass are essential

1) Wilding JPH, Batterham RL, Calanna S, Davies M, Van Gaal LF, Lingvay I, McGowan BM, Rosenstock J, Tran MTD, Wadden TA, Wharton S, Yokote K, Zeuthen N, Kushner RF; STEP 1 Study Group. Once-Weekly Semaglutide in Adults with Overweight or Obesity. N Engl J Med. 2021 Mar 18;384(11):989-1002. doi: 10.1056/NEJMoa2032183. Epub 2021 Feb 10. PMID: 33567185.

Lean Loss Ratio = (lean mass loss)/(lean mass loss + adipose mass loss)

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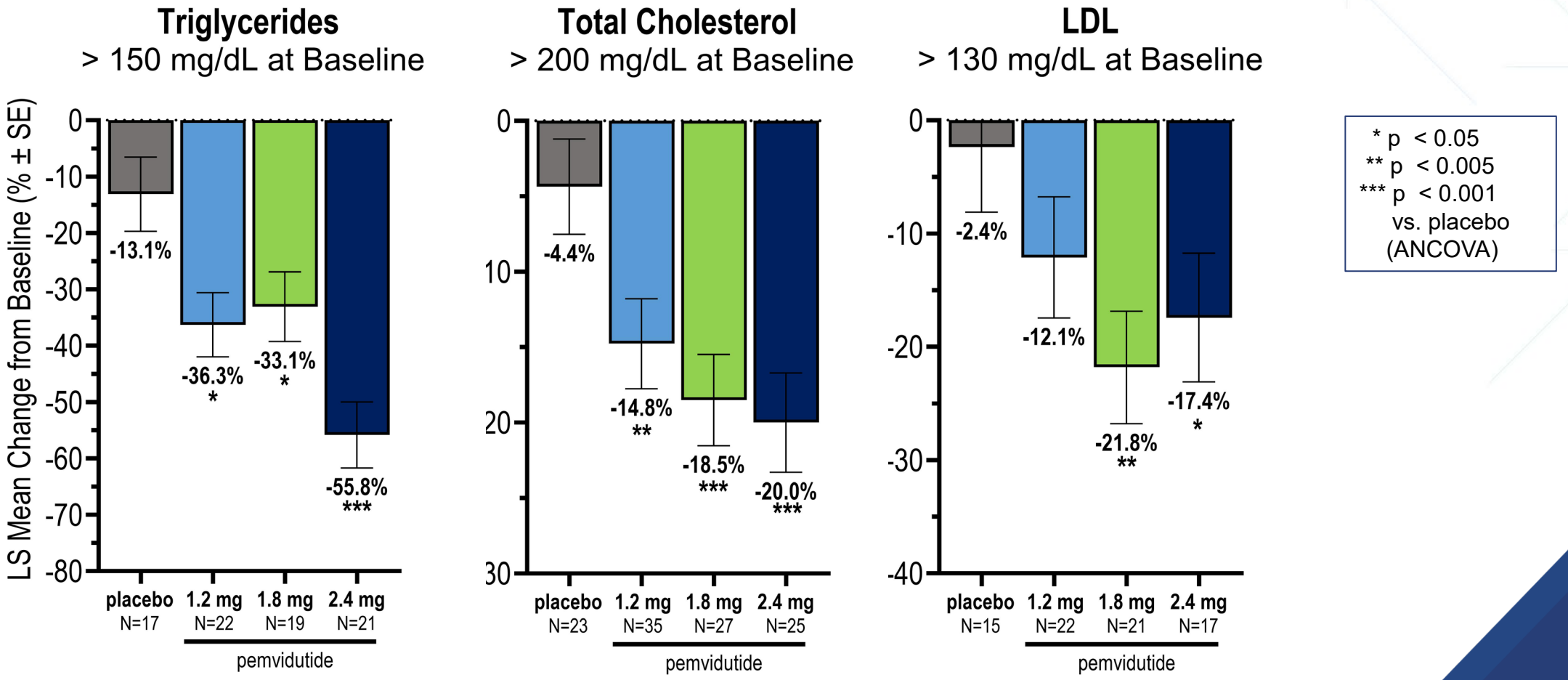
GREATER REDUCTIONS IN TRIGLYCERIDES, TOTAL CHOLESTEROL AND LDL IN SUBJECTS WITH ELEVATED BASELINE LEVELS



ANCOVA, analysis of covariance

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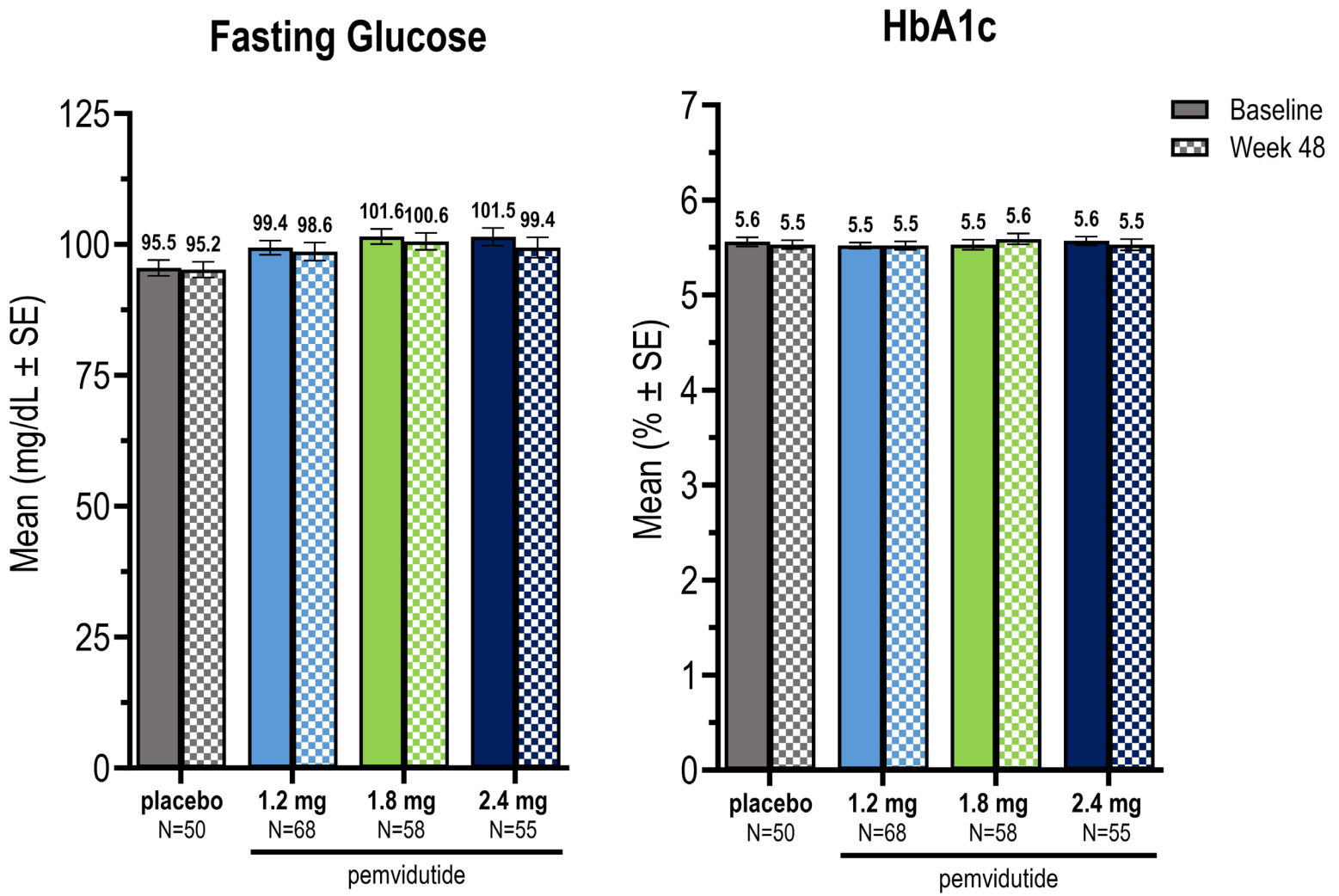
GLUCOSE HOMEOSTASIS MAINTAINED

NO MEAN CHANGES IN FASTING GLUCOSE OR HbA1c



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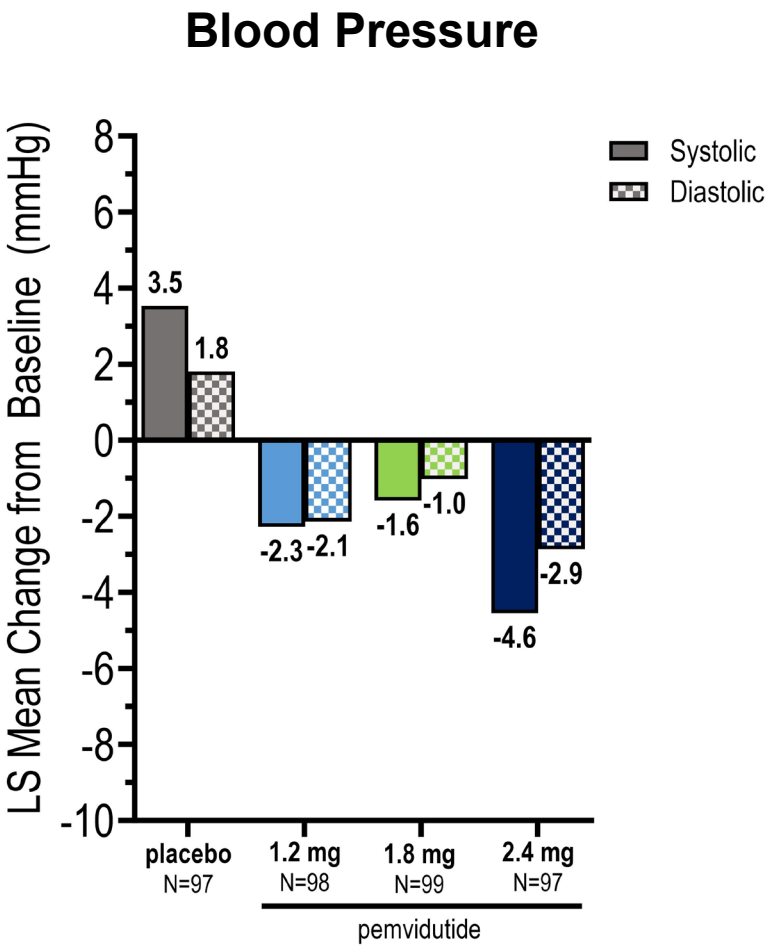
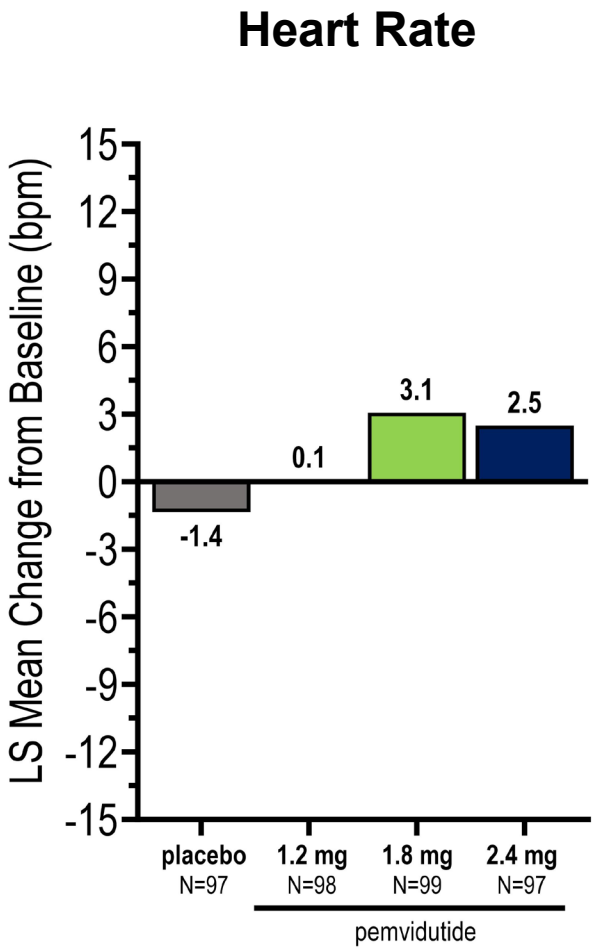
IMPROVEMENTS IN BLOOD PRESSURE WITHOUT CLINICALLY MEANINGFUL INCREASES IN HEART RATE AT WEEK 48





MMRM, mixed model for repeated measures

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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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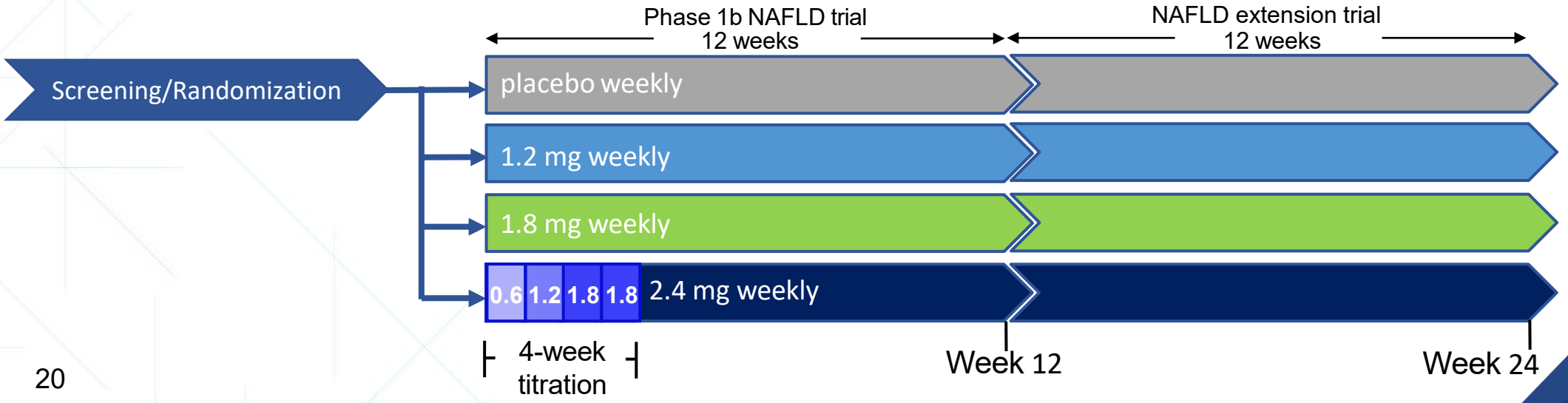
PEMVIDUTIDE PHASE 1b NAFLD (MASLD) TRIAL

- 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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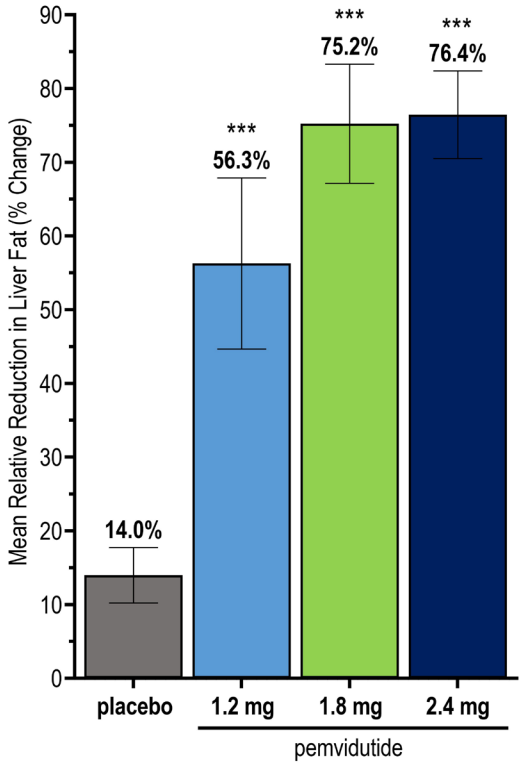
ROBUST REDUCTIONS IN LIVER FAT CONTENT

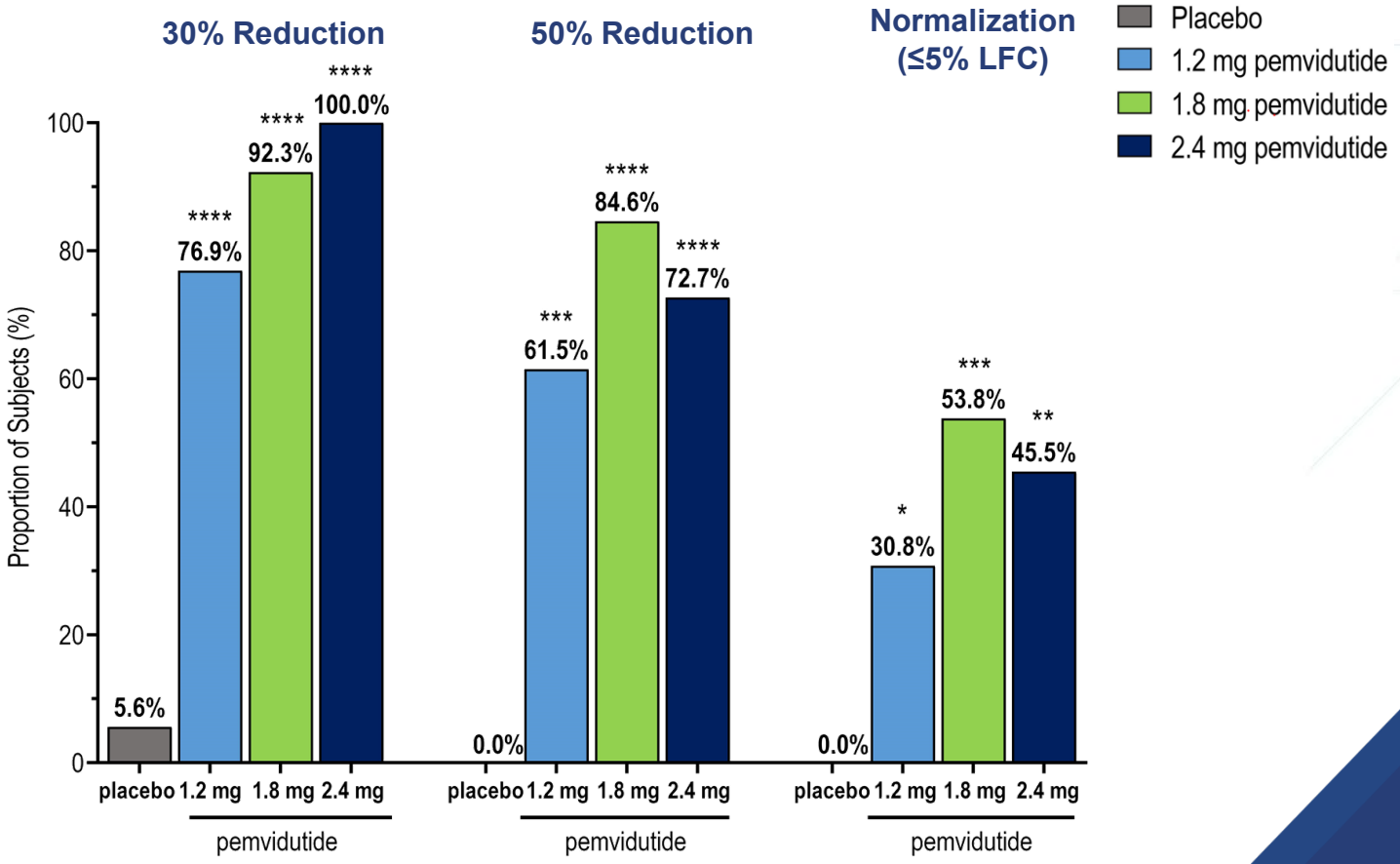
KNOWN TO CORRELATE WITH MASH RESOLUTION AND FIBROSIS IMPROVEMENT

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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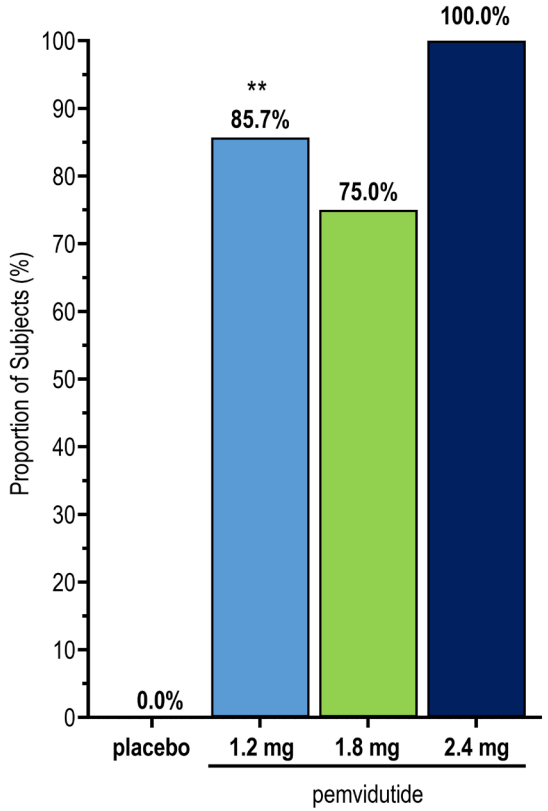
SIGNIFICANT cT1 RESPONSE RATES AND ALT REDUCTIONS

TWO INDEPENDENT INDICATORS OF REDUCED LIVER INFLAMMATION

cT1 Responder Rates[1] at Week 24

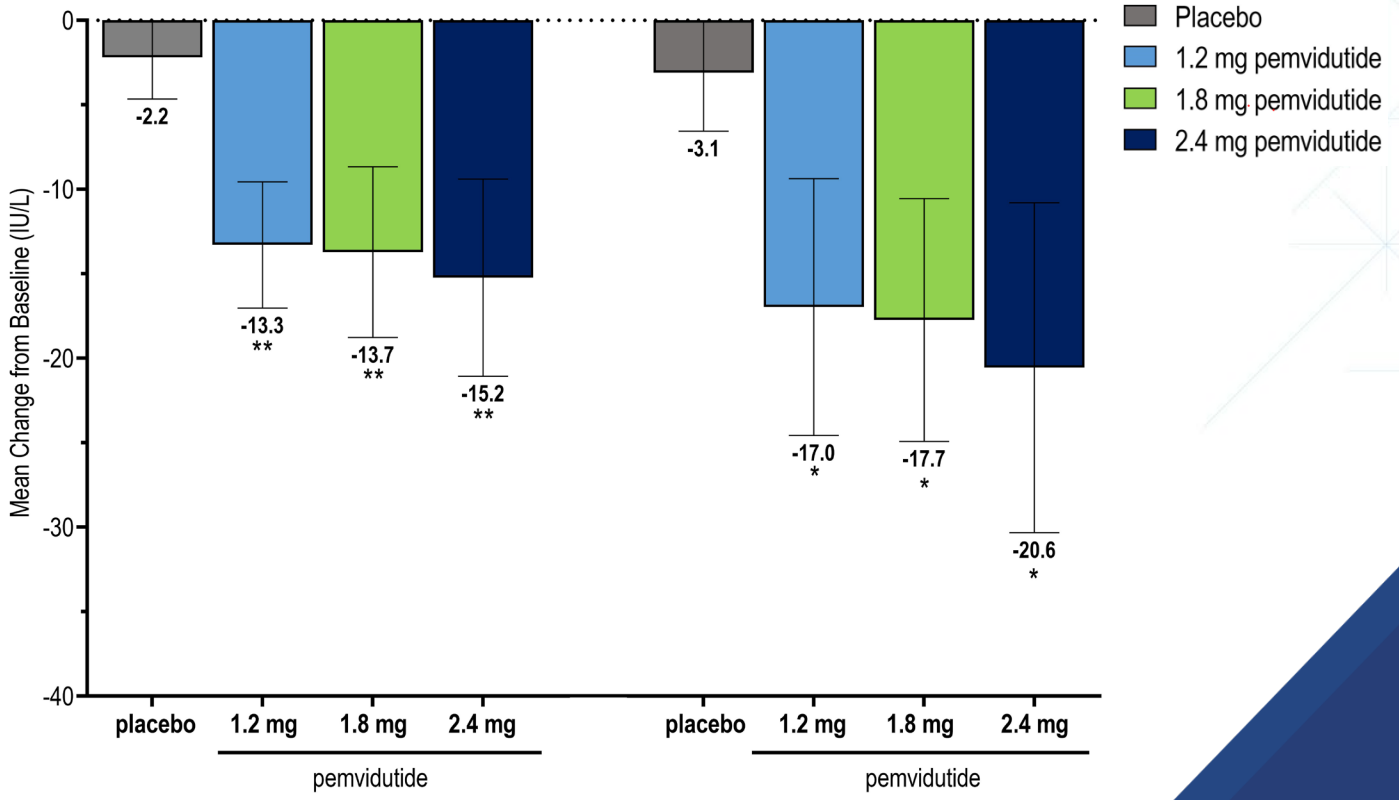


* p < 0.05, ** p < 0.005 vs. placebo (Fisher's Exact Test)

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 data expected in Q1 2025

PEMVIDUTIDE

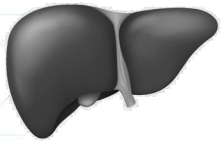
HIGHLY DIFFERENTIATED THERAPEUTIC FOR BOTH OBESITY AND MASH

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
- 78% of weight loss was from fat with only 22% from lean mass

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

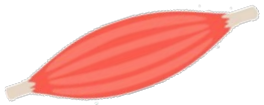
- Class leading rapid and robust liver fat reduction of 75% at 24 weeks
- ~50% liver fat normalization by Week 24
- cT1 response observed in >80% subjects by Week 12

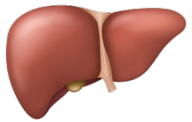
SAFETY

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

PEMVIDUTIDE TARGET PROFILE

>>15% Weight Loss	Class-Leading 21.9% Muscle Preservation	Significant Reductions in LDL, TG, and Total-Cholesterol	Class-Leading Liver Fat Reduction (>70%)	No Material HR Elevations; No Imbalances of Arrhythmias	Promise to be Most Tolerable
↓	↓	↓	↓	↓	↓
OBESITY	**MUSCLE PRESERVATION**	**DYSLIPIDEMIA**	**MASH**	**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 Q3 2024
3. Top line data for Phase 2b IMPACT MASH trial in Q1 2025

THANK YOU

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