ALTIMMUNE, INC.

STIFEL 2021 VIRTUAL HEALTHCARE CONFERENCE

November 15, 2021

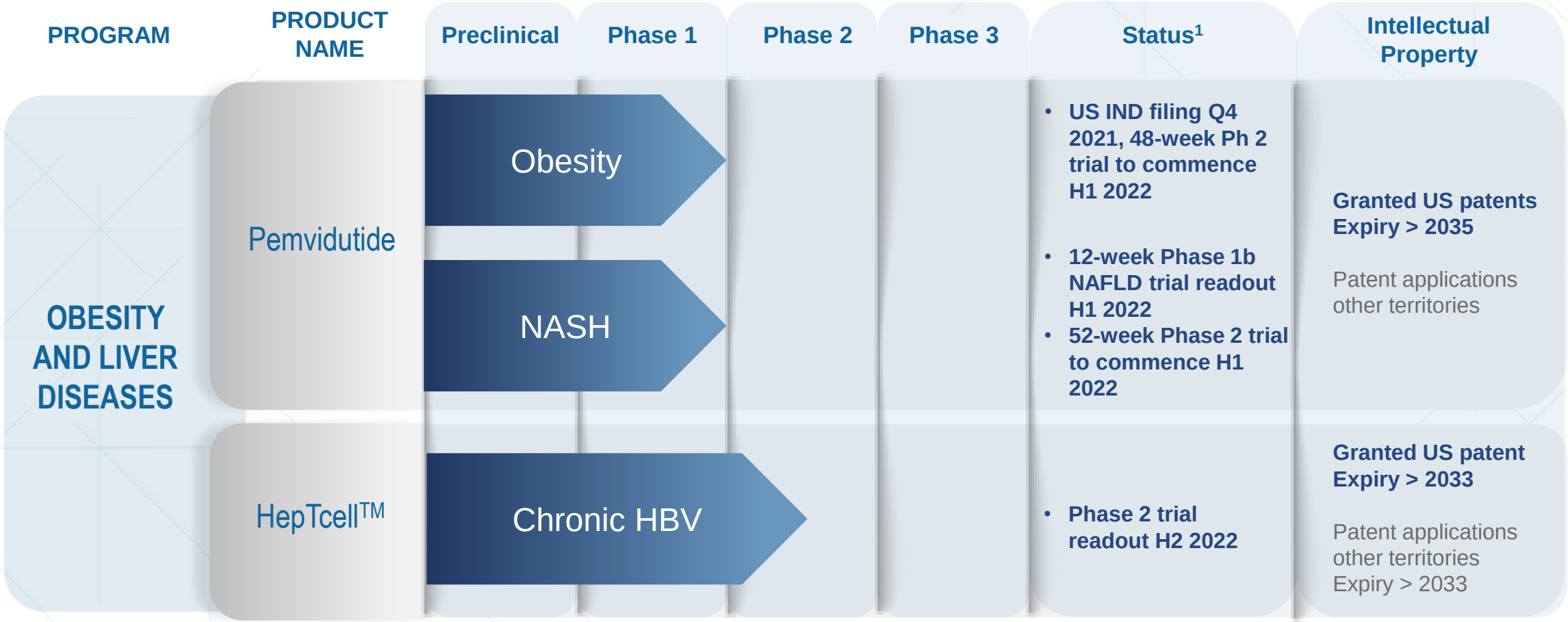
altimmune | NASDAQ: ALT

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; the Company’s BARDA contract and other government programs, reimbursement and regulation. 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.

FOCUSED DEVELOPMENT PIPELINE



[1] *expected dates*

altimmune

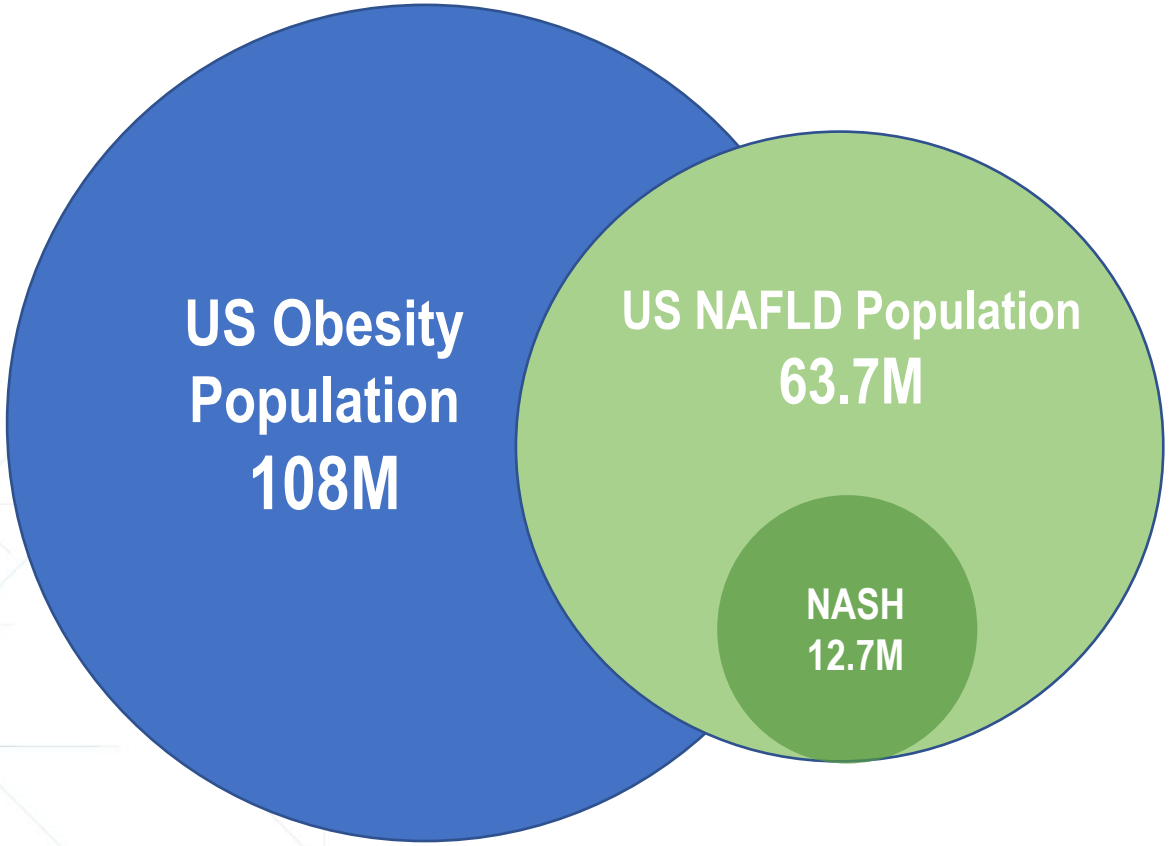
altimmune

Pemvidutide: Obesity and NASH

altimmune

OBESITY AND FATTY LIVER DISEASE

DISEASES WITH UNMET NEED APPROACHING EPIDEMIC PROPORTION



- Previous approaches to the treatment of obesity have been associated with safety concerns limiting success
- The recent success of (Wegovy™) has created a regulatory pathway for other incretin-based approaches
- The treatment of obesity is the cornerstone of treating NASH and the principal morbidities of NASH[1,2]

[1]Glass LM, Fed Pract 2019; [2]Perazzo H, Liver Int 2017

altimmune

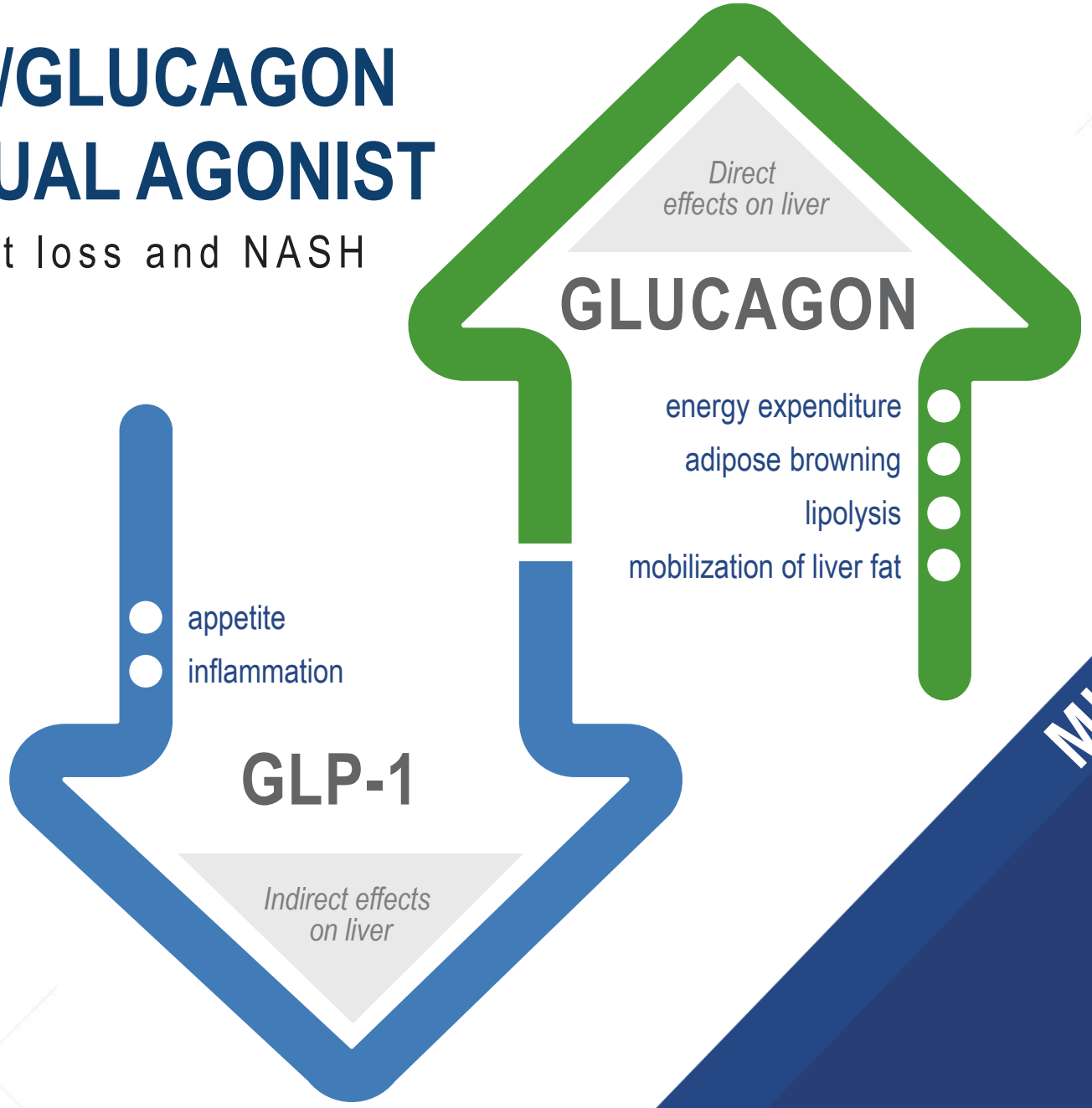
PEMVI: GLP-1/GLUCAGON RECEPTOR DUAL AGONIST

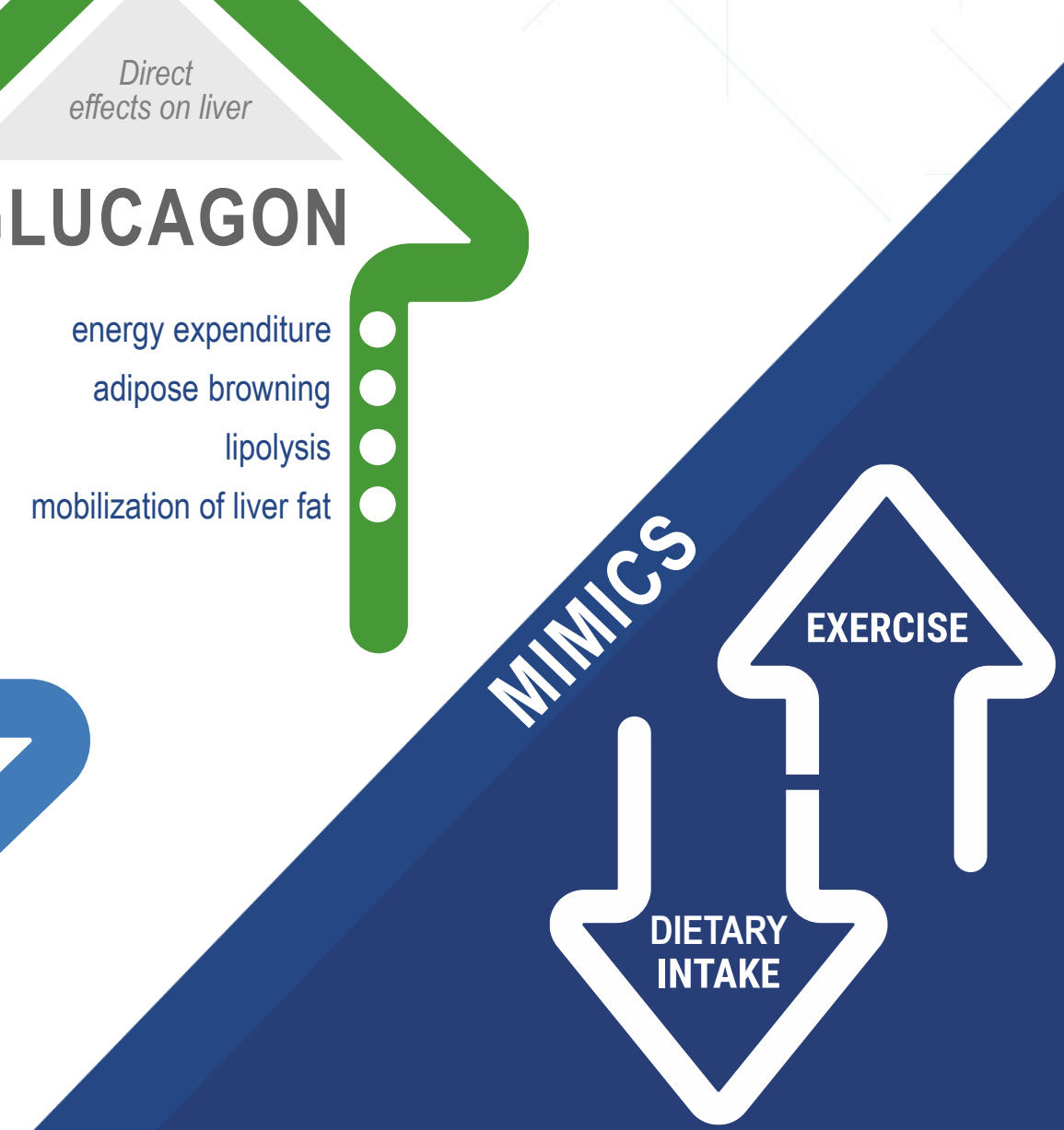
Optimized for weight loss and NASH

Designed for significant reductions in:

BODY WEIGHT

LIVER FAT, INFLAMMATION, & RESULTING FIBROSIS

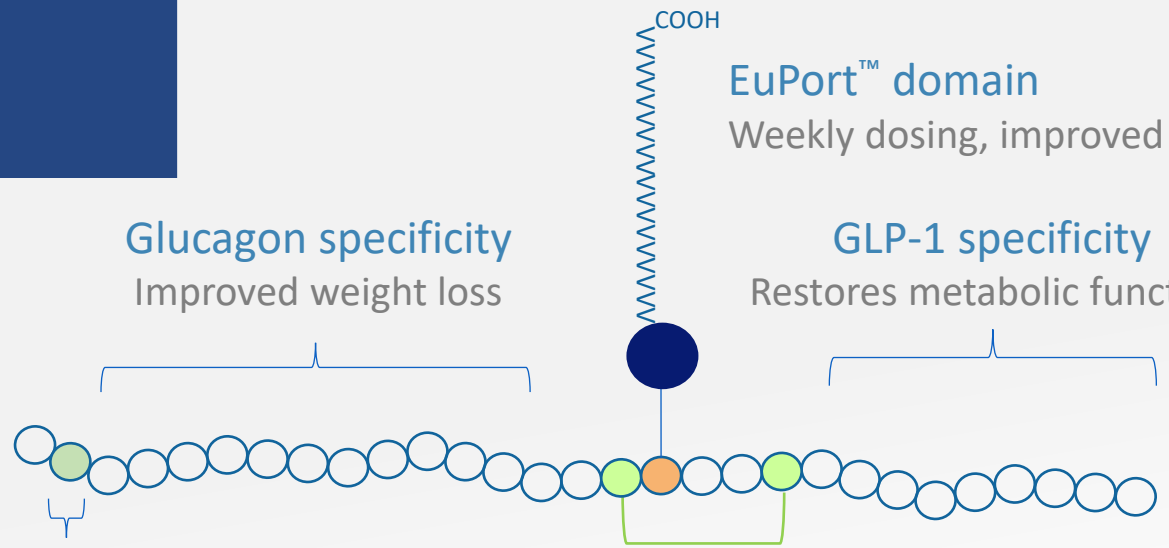




PEMVI: RATIONALLY DESIGNED AND HIGHLY DIFFERENTIATED

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

Balanced GLP-1: Glucagon Agonism

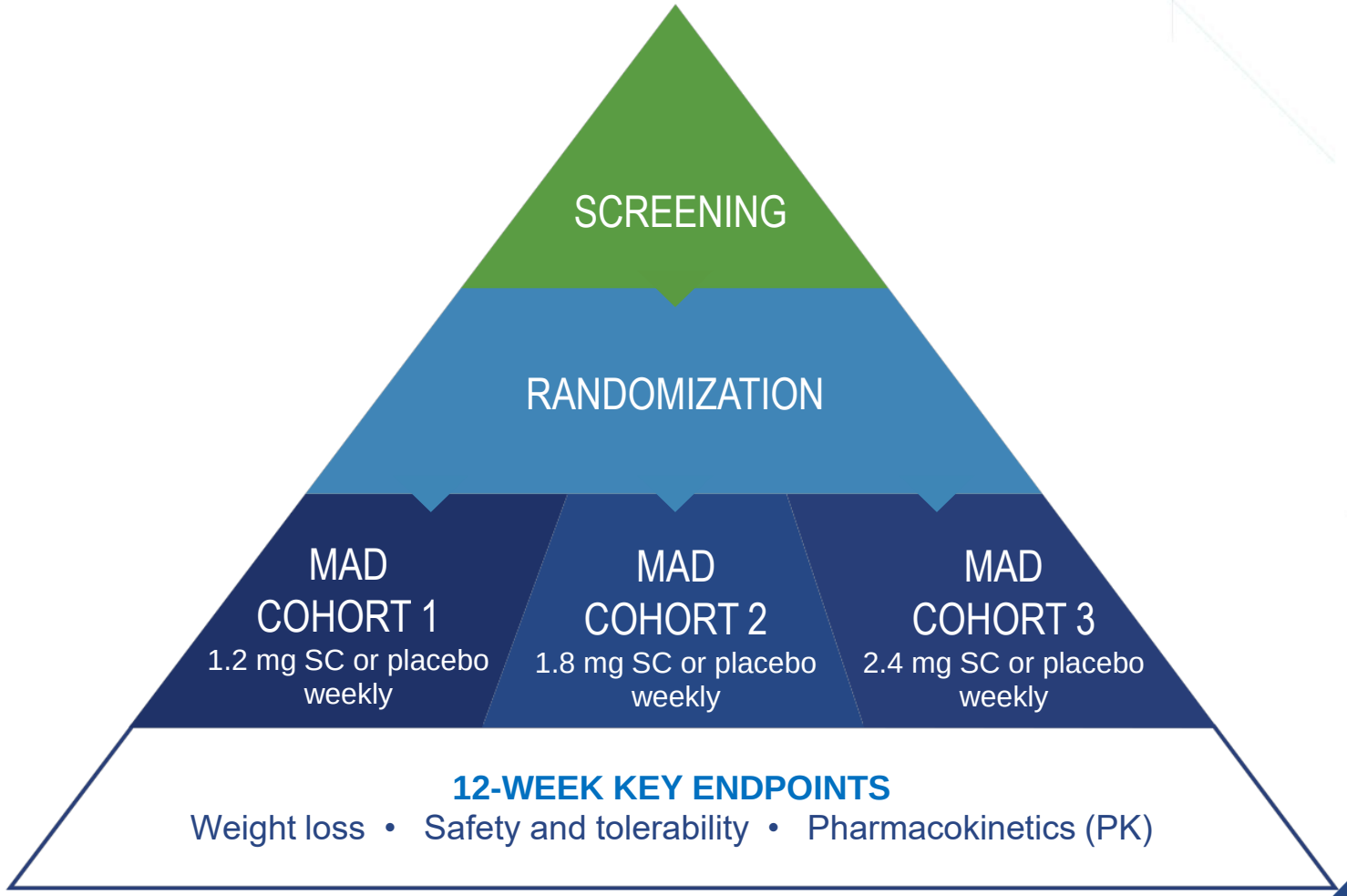


[1]Guarracino DA et al., Chem Rev. 2019 Sep 11;119(17):9915-9949

altimmune

PEMVIDUTIDE PHASE 1 – MAD TRIAL DESIGN

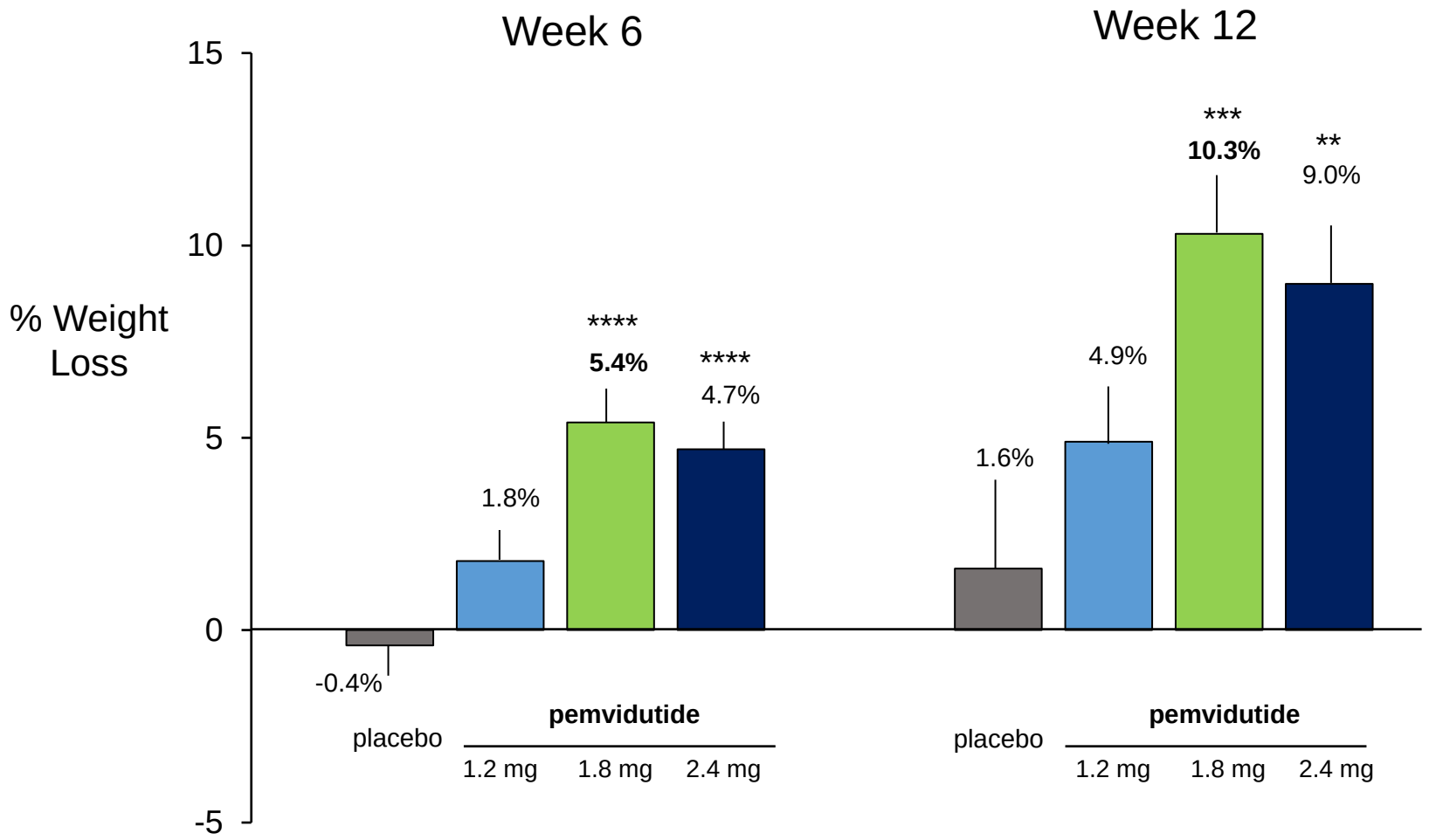
- Phase 1, first-in-human, placebo-controlled, multiple ascending dose (MAD) study in healthy overweight and obese volunteers
- Within MAD cohorts, patients were randomized 4:1 to pemvidutide or placebo, with placebos pooled across cohorts
- No dose titration
- No calorie restriction or behavioral weight loss programs



altimmune

SUBSTANTIAL WEIGHT LOSS AT WEEK 12

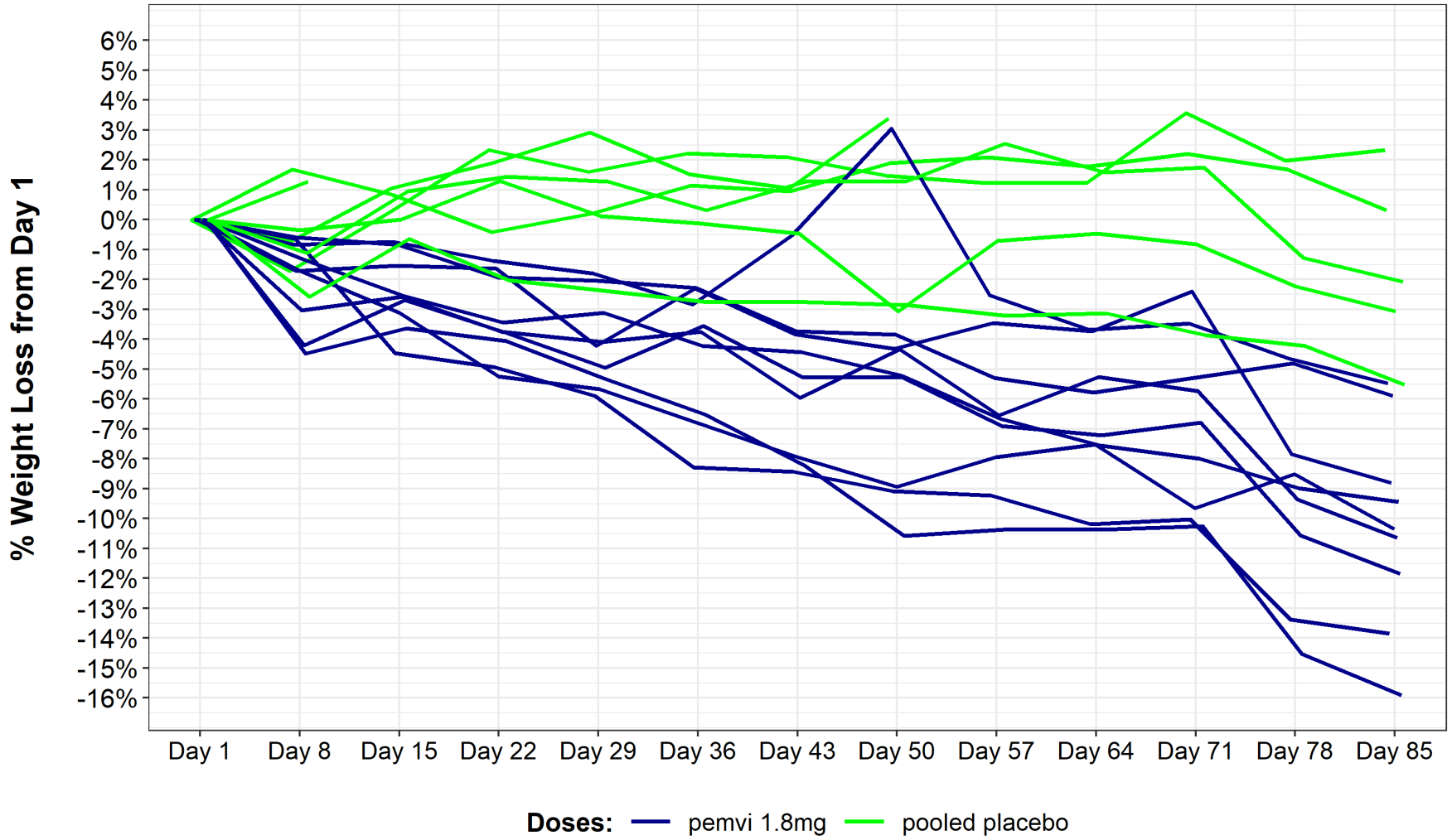
10.3% MEAN WEIGHT LOSS ACHIEVED AT 1.8 MG DOSE



*** p < .01, ***p < .005, ****p < .001; compared to placebo*

altimmune

MAJORITY OF SUBJECTS AT 1.8 MG DOSE ACHIEVED 10% OR MORE WEIGHT LOSS AT WEEK 12

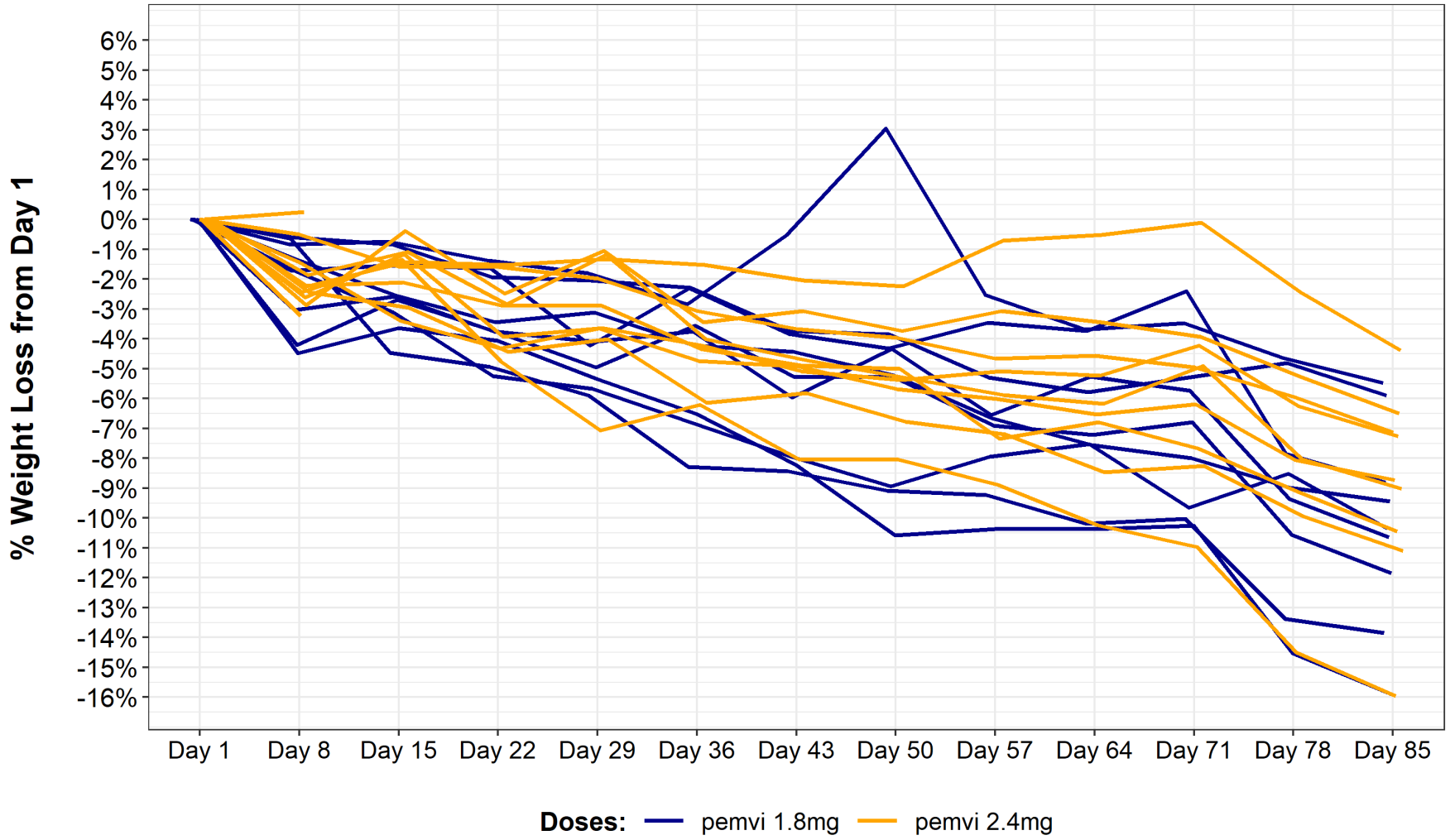


- 55% of subjects achieved 10% or more weight loss by Week 12
- 100% of subjects achieved 5% or more weight loss by Week 12

altimmune

WEIGHT LOSS AT PEMVIDUTIDE 1.8 MG AND 2.4 MG

SUBJECT WEIGHT LOSS PLOTS SUGGEST SIMILAR EFFECTS AT BOTH DOSES



altimmune

ROBUST CHANGES IN LIVER FAT CONTENT BY MRI-PDFF

LIVER FAT NOT ONLY NORMALIZED BUT DECREASED TO UNDETECTABLE LEVELS IN 6 WEEKS

In an exploratory analysis of subjects with elevated liver fat, defined as baseline liver fat ≥ 5% (range 5.5 – 19.5%):

- All 5 subjects receiving 1.8 or 2.4 mg achieved undetectable levels of liver fat at 6 weeks – a greater than 90% reduction
- Two subjects receiving pemvidutide 1.2 mg achieved liver fat reduction of 27% and 70% at 6 weeks

SAFETY OVERVIEW

NO STUDY DISCONTINUATIONS DUE TO ADVERSE EVENTS

Characteristic		Treatment			
		1.2 mg	1.8 mg	2.4 mg	Pooled placebo
AEs leading to discontinuation	**n (%)**	**0 (%)**	**0 (%)**	**0 (%)**	**0 (%)**
Serious or severe AEs	**n (%)**	**0 (%)**	**0 (%)**	**0 (%)**	**0 (%)**
Nausea					
Mild	n (%)	1 (14.3%)	5 (55.6%)	5 (45.5%)	1 (14.3%)
Moderate	n (%)	1 (14.3%)	1 (11.1%)	5 (45.5%)	0 (0.0%)
Vomiting					
Mild	n (%)	1 (14.3%)	1 (11.1%)	5 (45.5%)	1 (14.3%)
Moderate	n (%)	0 (0.0%)	1 (11.1%)	3 (27.3%)	0 (0.0%)
Diarrhea					
Mild	n (%)	0 (0.0%)	0 (0.0%)	2 (18.2%)	0 (0.0%)
Moderate	n (%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Constipation					
Mild	n (%)	0 (0.0%)	1 (11.1%)	2 (18.2%)	0 (0.0%)
Moderate	n (%)	0 (0.0%)	1 (11.1%)	1 (9.1%)	0 (0.0%)
Hyperglycemia	n (%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

One subject receiving pemvidutide 1.8 mg and one receiving placebo experienced 3-5x ALT elevations with subsequent resolution.

Gastrointestinal Adverse Events

- Most frequently mild at 1.8 mg dose with on-drug resolution and not requiring treatment
- No study discontinuations due to AEs

altimmune

SUBSTANTIAL WEIGHT LOSS WITHOUT DOSE TITRATION

OVERVIEW OF PHASE 1 DATA

WEIGHT LOSS

- 10.3% mean weight loss achieved at 1.8 mg dose after only 12 weeks
- Linear rate of weight loss suggests these effects will be sustained

SAFETY & TOLERABILITY

- Dose titration not needed for tolerability
- No serious or severe AEs and no AE-related study discontinuations
- Glucose homeostasis maintained by FBS and HbA1c
- No changes in heart rate

SECONDARY MEASURES

- Liver fat fell to undetectable levels in all patients with steatosis at two highest dose levels
- Robust improvements in blood pressure and lipids
- Enhanced insulin sensitivity

PEMVIDUTIDE CLINICAL DEVELOPMENT PLAN

RAPID DEVELOPMENT TO INITIATE PHASE 2 TRIALS IN 2022

Phase 1a Trial

- 12-week trial in overweight and obese subjects **– COMPLETED**

Phase 1b Trials

- 12-week NAFLD and drug-drug interaction trials — initiated September 2021
- 12-week type 2 diabetes safety trial — to be initiated Q1 2022
- **DATA READOUTS – H1 2022**

Phase 2 Trials

- Obesity IND to be filed Q4 2021
- 48-week Phase 2 Obesity trial — to be initiated H1 2022
  - **DATA READOUT – 24 wk interim analysis Q4 2022**
- 52-week Phase 2 NASH trial — to be initiated H1 2022
  - **DATA READOUT – 2023**

altimmune

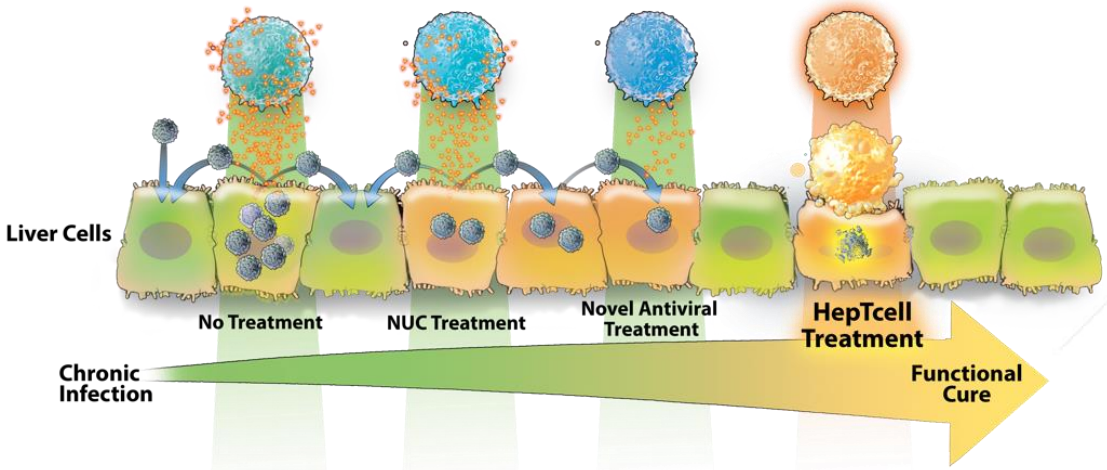
HepTcell: Chronic HBV

altimmune

CURRENTLY APPROVED HBV THERAPEUTICS DO NOT LEAD TO A CURE

IMMUNE ACTIVATION WILL BE REQUIRED FOR SIGNIFICANT IMPACT

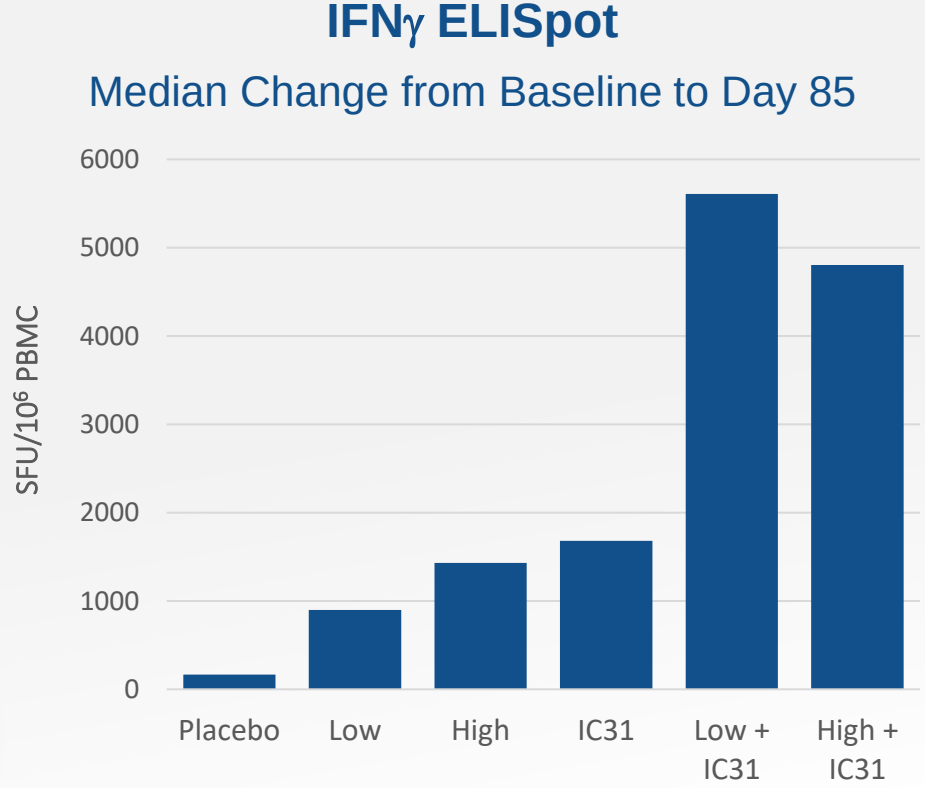
- Current antivirals prevent disease progression but **rarely clear chronic infection**
- **Breaking T cell immune tolerance is key** to functional cure
- Newer direct-acting antivirals **unlikely to result in immune reactivation alone**
- **HepTcell is designed to "wake up" dormant T-cells** to eliminate infection



altimmune

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

altimmune

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 at Week 24
  - Secondary endpoints: HBsAg clearance, changes from baseline in HBsAg, HBV DNA, HBcrAg, pg-RNA at Week 24
- Phase 2 data readout of primary endpoint expected H2 2022
- Follow-up phase will assess the safety and durability of response one year after completion of treatment

altimmune

altimmune

SUMMARY

altimmune

SUMMARY OF NEAR-TERM CATALYSTS

1. US IND filing for obesity in Q4 2021
2. Phase 1b NAFLD study top line data in H1 2022
3. Initiate 48-week Phase 2 obesity study in H1 2022
4. Initiate 52-week biopsy driven Phase 2 NASH Study in H1 2022
5. 24-week interim Phase 2 obesity data in Q4 2022

altimmune

ALTIMMUNE: INVESTMENT HIGHLIGHTS

1. **Developing portfolio with 3 multibillion-dollar indications**
   Obesity, NASH and Chronic Hepatitis B

2. **Impressive pemvidutide Phase 1 MAD trial data**
   >10% weight loss in 12 weeks using well-tolerated regimen without dose titration

3. **Multiple catalysts over the next 12 months**
   Data read-outs from multiple clinical programs

4. **Strong cash position to reach value-generating milestones**
   ~$200 million as of September 30, 2021

altimmune

THANK YOU

altimmune

NASDAQ: ALT