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NASDAQ: ALT

CORPORATE PRESENTATION

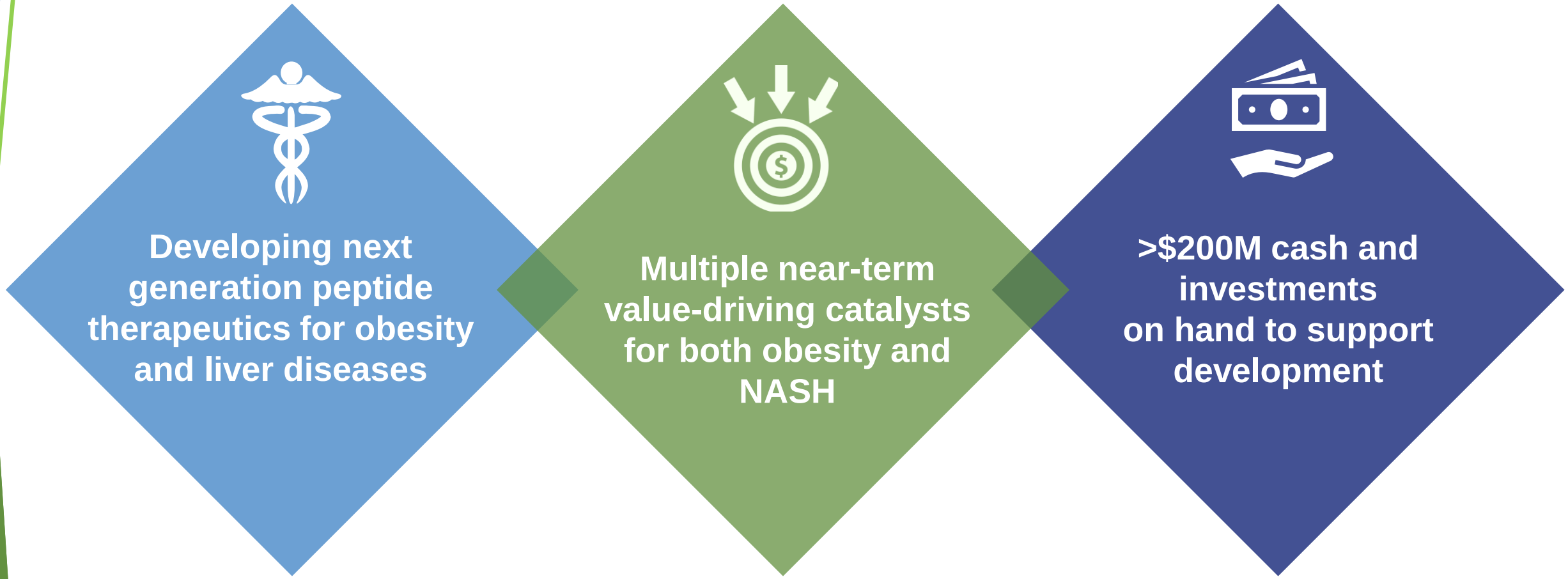
Q3 2021

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.

COMPANY HIGHLIGHTS



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STRONG EXECUTIVE MANAGEMENT TEAM

Vipin K. Garg, PhD
President & CEO

Will Brown, CPA, MBA
Chief Financial Officer

Scott Harris, MD
Chief Medical Officer

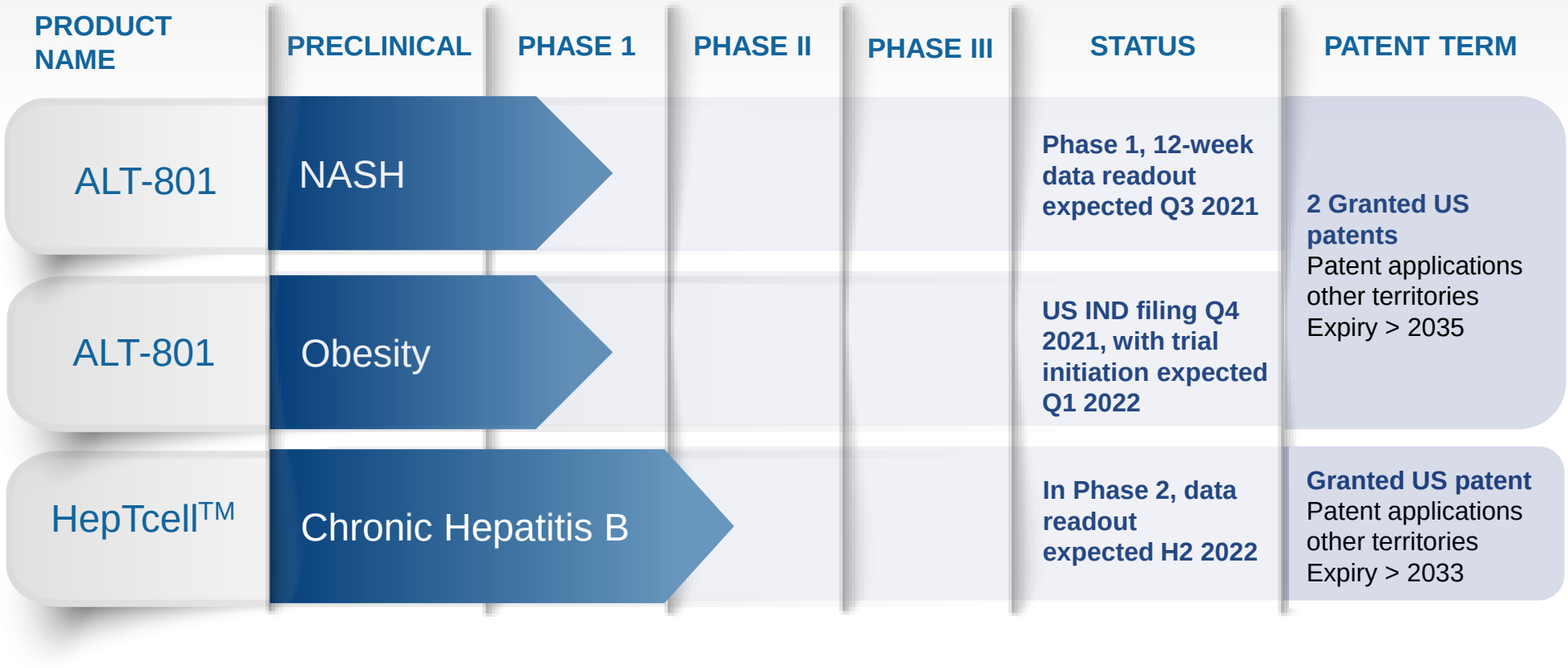
Scot Roberts, PhD
Chief Scientific Officer

Bertrand Georges, PhD
Chief Technology Officer

José Ochoa, JD
Chief Business Officer

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

FOCUS ON LIVER AND METABOLIC DISEASES



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NASH and Obesity: ALT-801

NASH AND NAFLD

HEPATIC MANIFESTATIONS OF OBESITY AND METABOLIC SYNDROME

- NAFLD is present in up to **90% of obese patients**, and **~20%** of NAFLD patients **progress to NASH**[1]
- Up to **40% of NASH patients relapse with NAFLD** an average of one year after liver transplant — consistent with the presence of underlying metabolic disease[2]
- The **treatment of obesity** is the cornerstone of treating NASH and the principal morbidities of NASH[1,3]
- Drugs in development should target the **weight loss range achieved by bariatric surgery**[4]

[1]Glass LM, Fed Pract 2019; [2]Dureja, P, Transplantation 2011; [3]Perazzo H, Liver Int 2017; [4]Armstrong M, Vantage December 14, 2018

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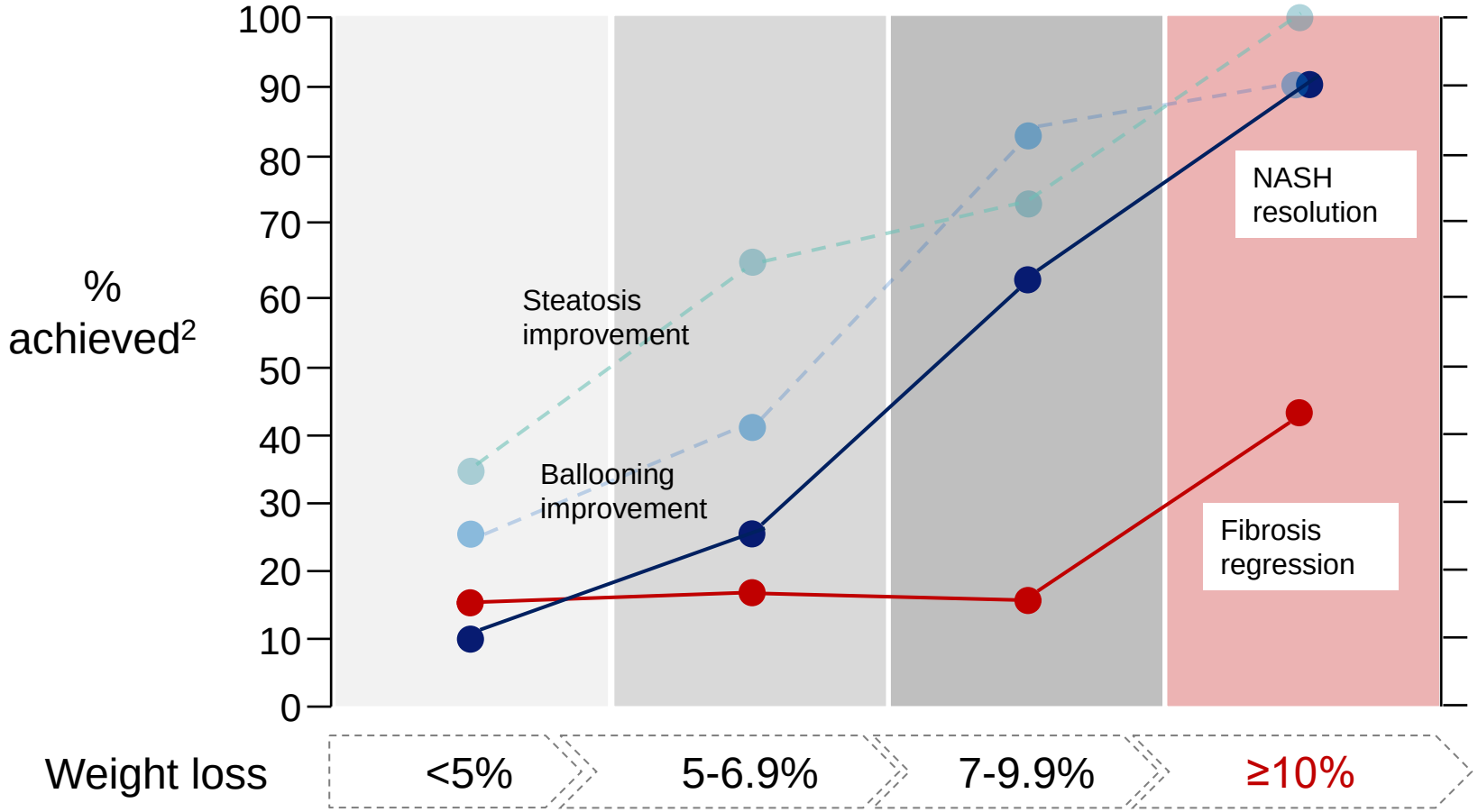
SUBSTANTIAL BODY WEIGHT LOSS IS NECESSARY TO BLUNT NASH PROGRESSION

10% OR MORE WEIGHT LOSS MUST BE ACHIEVED[1]



The **treatment of obesity** remains the cornerstone of NASH and NAFLD therapy

Meaningful weight loss is rarely achieved without medical intervention

Current drugs have failed to deliver the weight loss achieved by bariatric surgery

[1] *Promrat et al Hepatology 2010; Glass et al Dig Dis Sci 2015; Vilar-Gomez et al Gastroenterology 2015; Marchesini et al Hepatology 2016; Koutowkidis et al JAMA Intern Med 2019*

[2] *Adapted from Harrison, EASL 2019, Traber, Discovery on Target: Targeting NASH 2019, and Vilar-Gomez, Gastroenterology 2015*

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KEY COMPOUNDS IN ADVANCED NASH DEVELOPMENT

ONLY SEMAGLUTIDE ACHIEVED MEANINGFUL LEVELS OF WEIGHT LOSS

Agent	Author (year)	Mechanism	Weight Loss (%)
Obeticholic acid	Younossi, ZM 2019[1]	FXR agonist	~2%
Resmetirom	Harrison, SA 2018[2]	THRβ agonist	no change
Aldafermin (3mg)†	Harrison, SA 2019[3]	FGF19 agonist	1.3%
Pegbelfermin (10 mg)††	Sanyal, A 2018[4]	FGF21 agonist	~5%
AKR-001 (70 mg)	Ritchie, M 2020[5]	FGF21 agonist	no change
Firsocostat	Lawitz, EJ 2018[6]	ACC inhibitor	no change
Semaglutide	Newsome, PN 2020[7]	GLP-1	12.5%

† No information has been made public on 1mg dose

†† Gain of 0.6% on 20mg dose

[1]Younossi, YM, et al. (2019) Lancet 394: 2184-96; [2]Harrison, SA, et al. Lancet 394: 2012-24; [3] Harrison, SA, et al. (2019) Lancet 391:1174-85; [4]Sanyal, A, et al. (2018) Lancet 392:2705-17; [5]Ritchie, M, et al. (2020) Exp Opin Invest Drugs, 29:2, 197-204; [6] Lawitz, EJ, et al. (2018) Clin Gastroenterol Hepatol 16:1983-91; [7]Newsome, PM et al (2020) NEJM 384:1113-24

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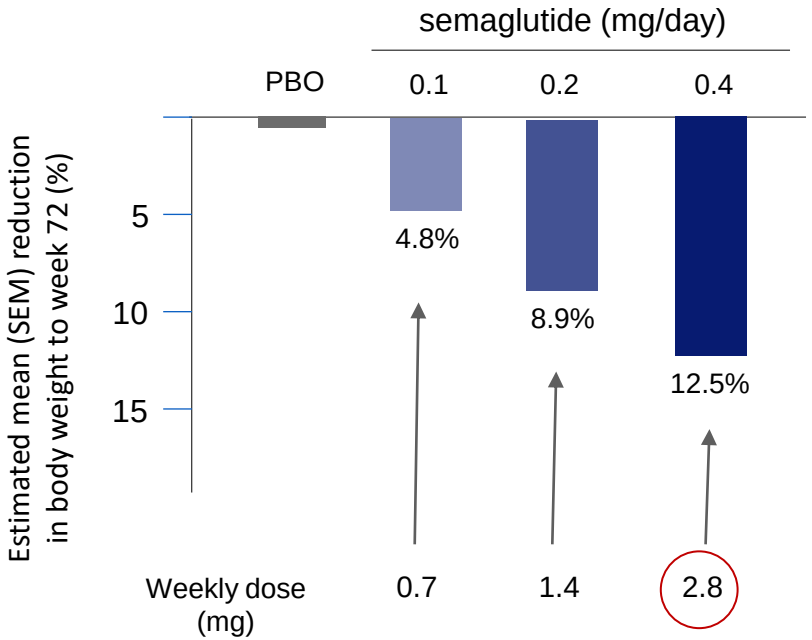
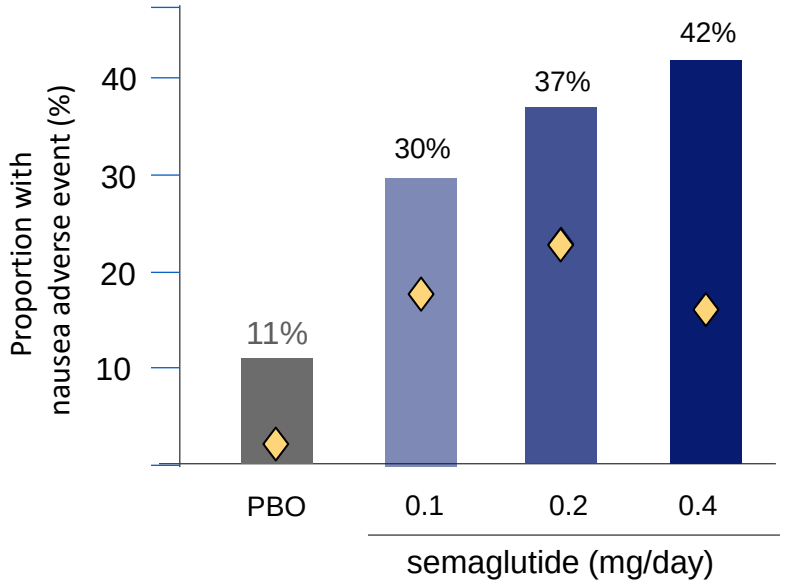
SEMAGLUTIDE NASH TRIAL (0.1 TO 0.4 MG/DAY)

DRIVING WEIGHT LOSS AT THE COST OF GI SIDE EFFECTS AND DOSE TITRATION

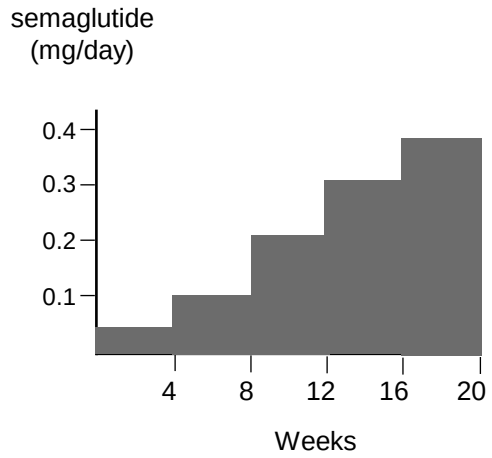
Body Weight



Nausea /Vomiting



Dose Titration



Newsome, PM et al (2020) NEJM 384:1113-24 .

PBO, placebo

ALT-801 – DIFFERENTIATED GLP-1/ GLUCAGON DUAL AGONIST

ENCOURAGING HUMAN PROOF-OF-CONCEPT DATA AT 6-WEEKS

- **Net 6.3% weight loss** at 6-week interim analysis of Phase 1 trial
- **No dose titration** required compared to ≥ 16 weeks with other agents
- **Impressive tolerability** with no discontinuations related to drug and only transient nausea observed

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ALT-801 PHASE 1 TRIAL DESIGN

- Phase 1 SAD/ MAD conducted in Australia with approximately 100 subjects
- Patient population is overweight and obese non-diabetics with a minimum BMI of 25 who are otherwise healthy
- Phase 1 study is advancing to full 12-week data readout in Q3 2021. Data readouts expected on:
  - Weight loss
  - Safety, tolerability
  - Pharmacokinetics (PK)
  - Lean body mass, calorie intake, resting energy expenditure (REE) and FGF-21
  - Glucose homeostasis
  - Insulin resistance—HOMA-IR2, adiponectin
  - Lipids (HDL, LDL, TG, lipoprotein (a))

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ALT-801 PHASE 1 TRIAL INTERIM 6-WEEK DATA

IMPRESSIVE WEIGHT LOSS AND TOLERABILITY WITH NO DOSE TITRATION

- 6-week interim data readout in June 2021 on safety and weight loss in multiple ascending dose cohorts:

	Dose	Mean Weight (Loss) Gain	Transient Nausea Rates	Vomiting, Constipation, Diarrhea	Discontinuations
Cohort 1	1.2 mg	(1.8%)	14.3%	0%	1*
Cohort 2	1.8 mg	(5.4%)	22.2%	0%	0
Placebo	---	0.9%	0%	0%	0

**Discontinuation unrelated to adverse events*

- Weight loss exceeded expectation of 2% at 6-weeks
- Study participants *not* on calorie restricted diet or other lifestyle modification program
- Dose titration was *not* required

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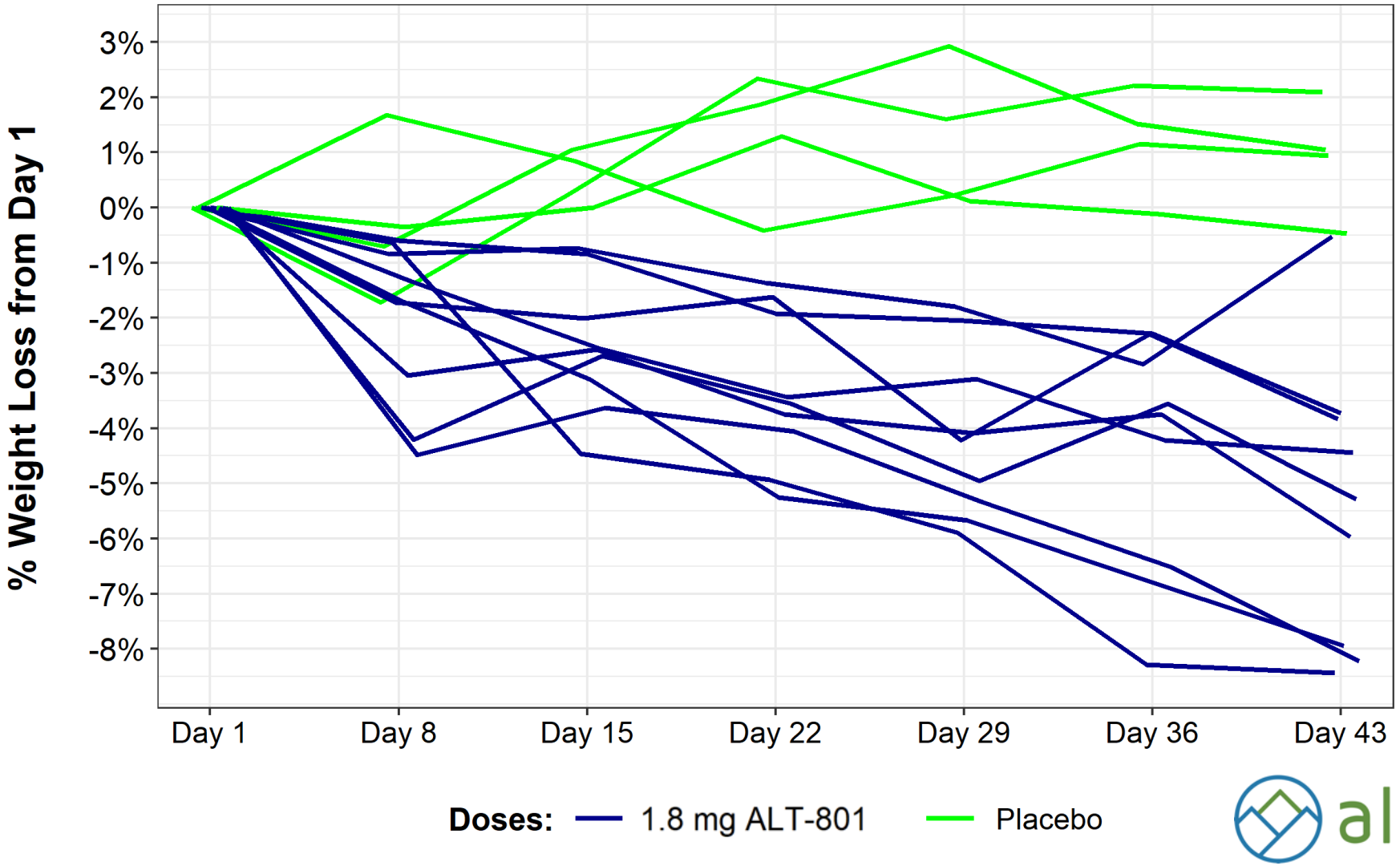
ALT-801 PHASE 1 TRIAL INTERIM 6-WEEK DATA

≥3% WEIGHT LOSS ACHIEVED IN ALL BUT 1 PARTICIPANT



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ALT-801 CLINICAL DEVELOPMENT PLAN

RAPID DEVELOPMENT TO INITIATE ROBUST PHASE 2 TRIALS IN 2022

Australian Phase 1a Trial

- Complete 12-week trial in overweight and obese subjects Q3 2021

USA Phase 1b Trial

- Filed NASH IND in USA in Q3 2021
- Initiate 12-week NAFLD study to measure liver fat reduction by MRI-PDFF in Q3

Other Development

- Drug-drug interaction study by year end 2021
- Type 2 diabetic study by year end 2021

USA Phase 2 Trials

- File Obesity IND in USA in Q4 2021
- Initiate 24-week Phase 2 Obesity Trial by Q1 2022
- Initiate 52-week Phase 2 NASH Trial by Q1 2022

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ALT-801: GLP-1/GLUCAGON RECEPTOR DUAL AGONIST

OPTIMIZED FOR NASH AND WEIGHT LOSS

GLP-1

blood glucose

appetite

inflammation

Indirect effects on liver

GLUCAGON

energy expenditure

adipose browning

lipolysis/ gluconeogenesis

mobilization of liver fat

Direct effects on liver

DESIGNED FOR SIGNIFICANT REDUCTIONS IN

body weight

liver fat, inflammation and resulting fibrosis

blood glucose

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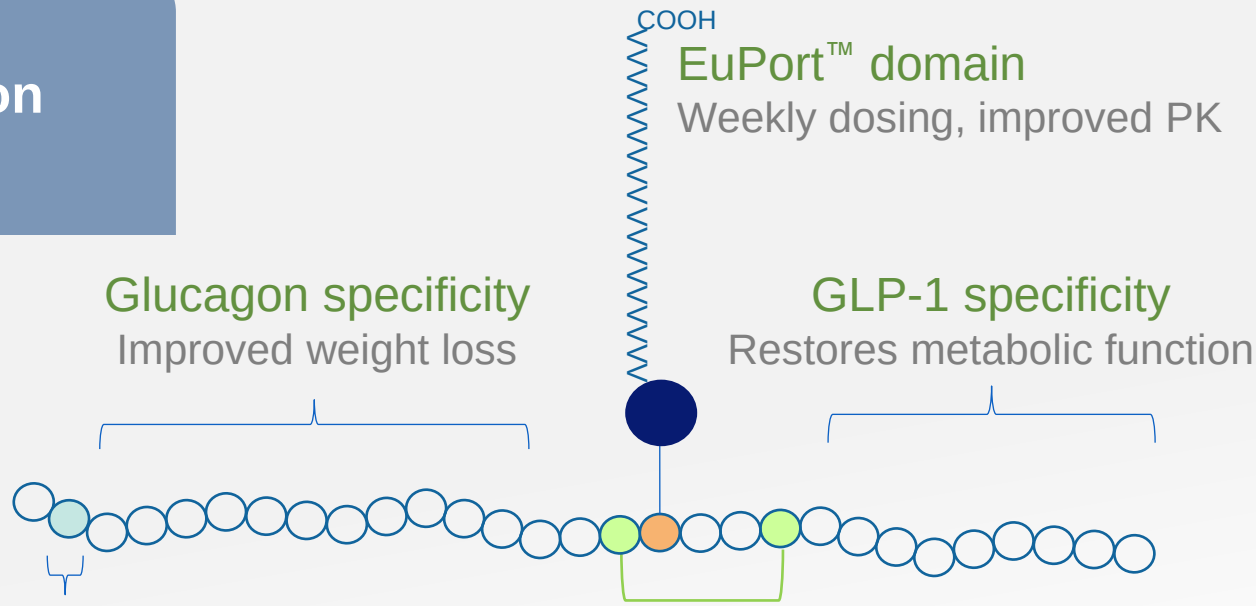
ALT-801: RATIONALLY DESIGNED AND HIGHLY DIFFERENTIATED

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

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SUMMARY OF PRECLINICAL STUDIES

- ALT-801 preclinical results in diet induced obesity models showed superior reductions in majority of measured NASH and glucose parameters compared to semaglutide:
  - Body and liver weight
  - NAS and ALT
  - Galectin-3 content
  - Liver triglycerides and cholesterol
  - Glucose lowering effect
- ALT-801 improved metabolic function and exhibited pleiotropic effects in preclinical testing across multiple pathways involved in NASH
- ALT-801 resulted in profound suppression of genes associated with steatosis, inflammation and stellate cell fibrosis

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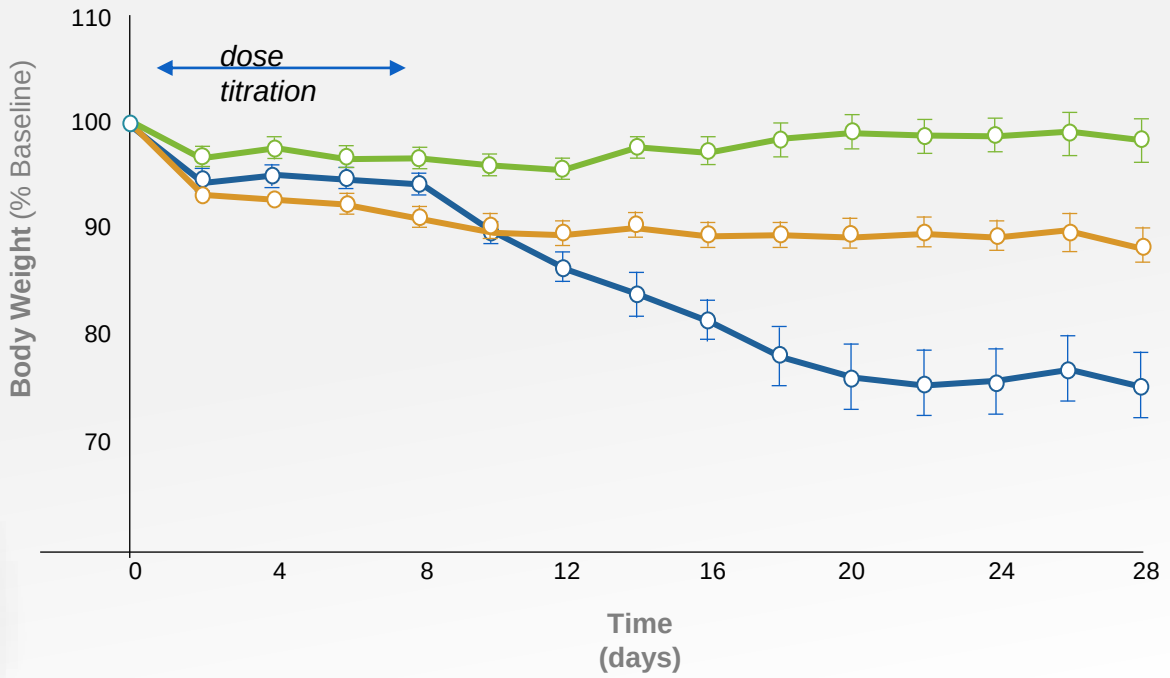
25% REDUCTION IN BODY WEIGHT TO CHOW-FED LEAN NORMAL RANGE

Mouse DIO Model After 4 Weeks of Treatment



More than **2x** the weight loss of **semaglutide**

Vehicle

Semaglutide (12nmol/kg)

ALT-801 (12nmol/kg)

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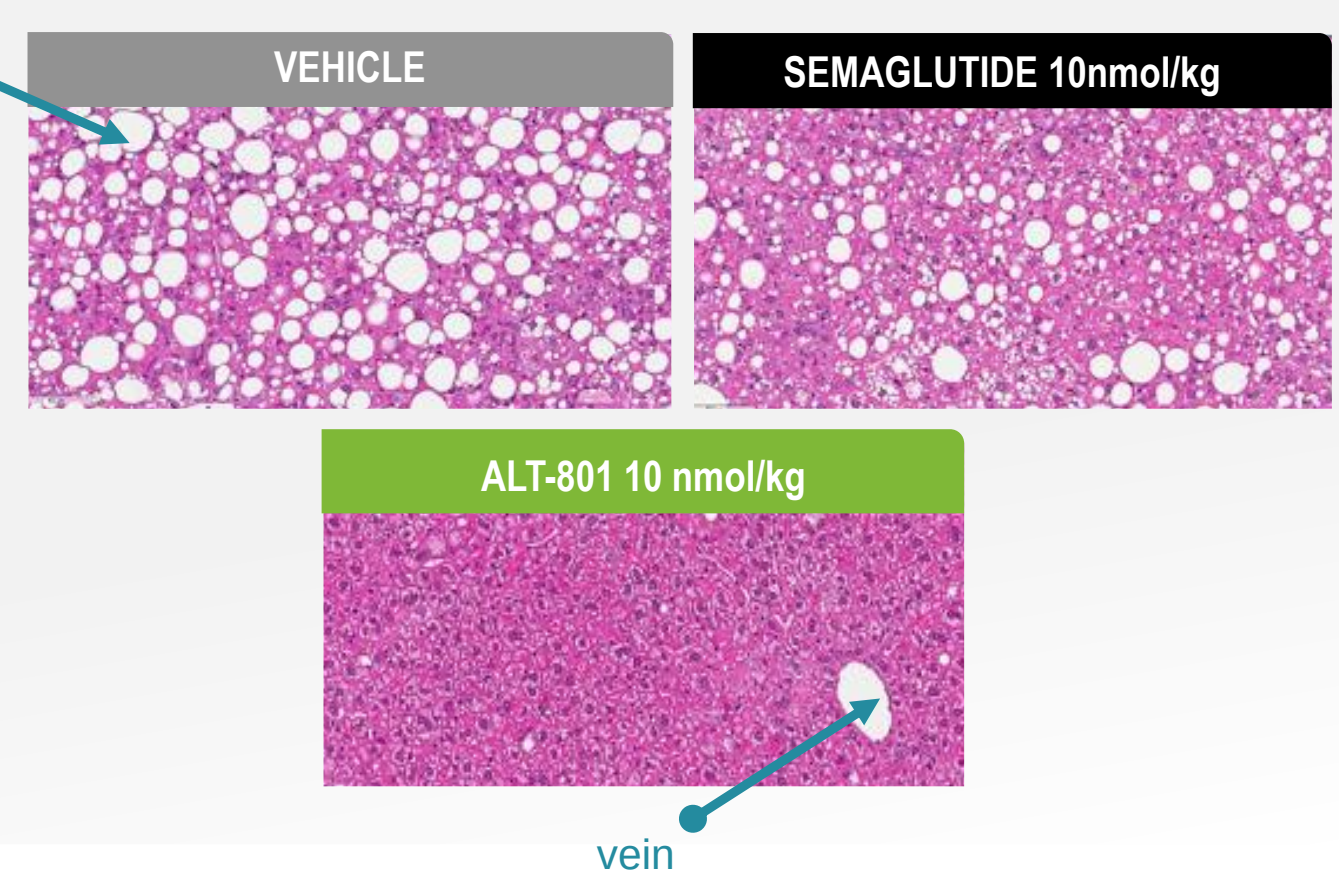
REDUCTION IN LIVER FAT AND LIVER WEIGHT TO LEAN NORMAL RANGE

Gubra Model After 12 Weeks of Treatment



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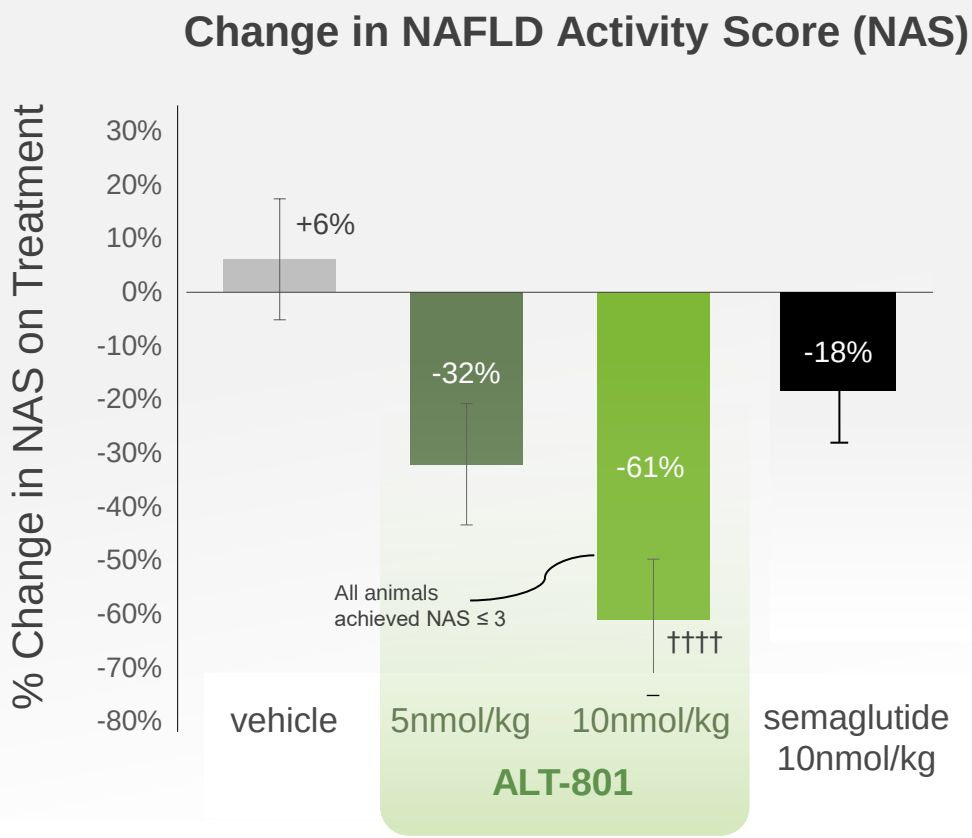
IMPROVEMENT IN NAFLD ACTIVITY SCORE (NAS)

Gubra Model After 12 Weeks of Treatment



Mean (SE), 1-way ANOVA with Dunnett's adjustment for multiplicity
†† p < .01, ††† p < .001, ††††, p < .0001 vs. semaglutide (n=11-12)

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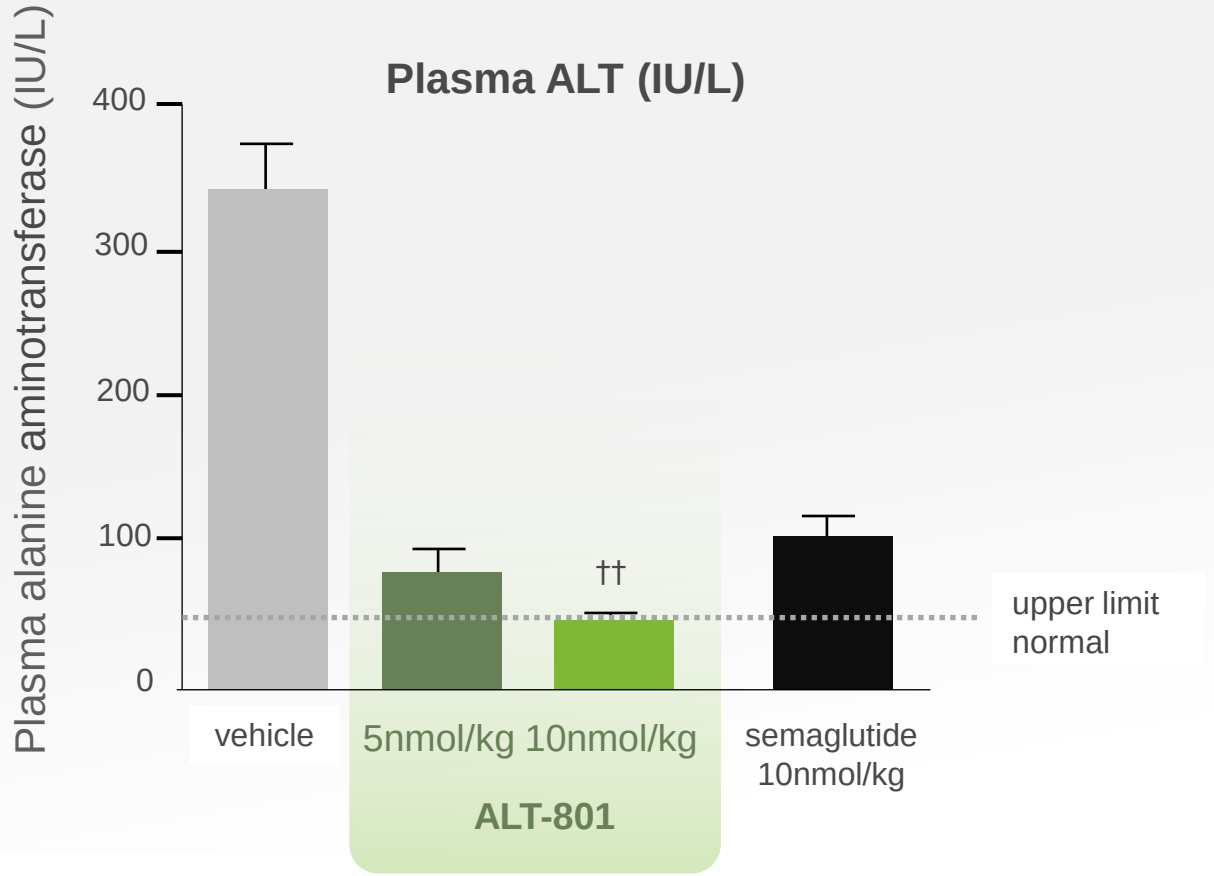
NORMALIZATION OF PLASMA ALT

Gubra Model After 12 Weeks of Treatment



Mean (SE), 1-way ANOVA with Dunnett's adjustment for multiplicity
†† p < .01, ††† p < .001, ††††, p < .0001 vs. semaglutide (n=11-12)

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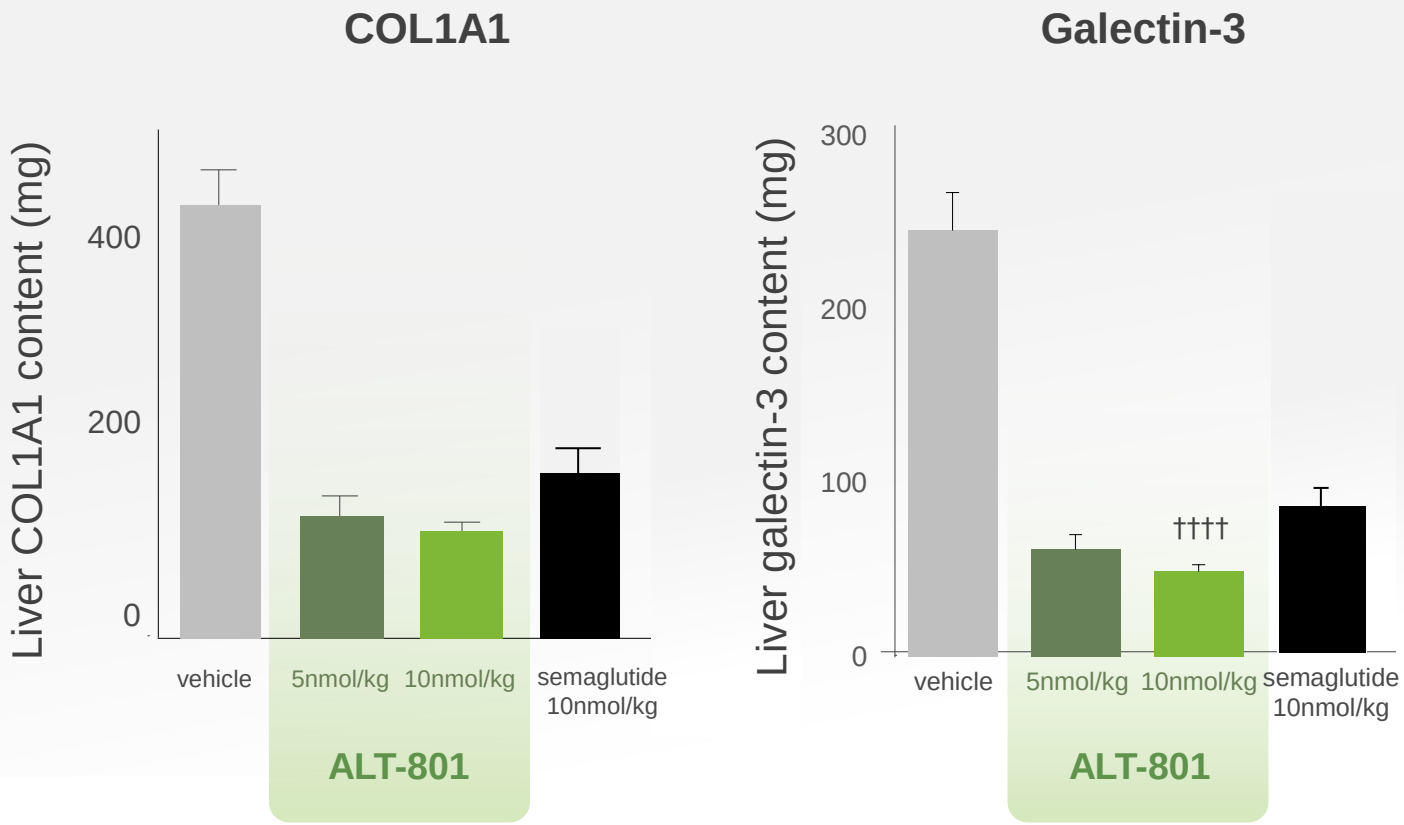
GREATER EFFECTS ON FIBROSIS

Gubra Model After 12 Weeks of Treatment



Mean (SE), 1-way ANOVA with Dunnett's adjustment for multiplicity
†† p < .01, ††† p < .001, ††††, p < .0001 vs. semaglutide (n=11-12)

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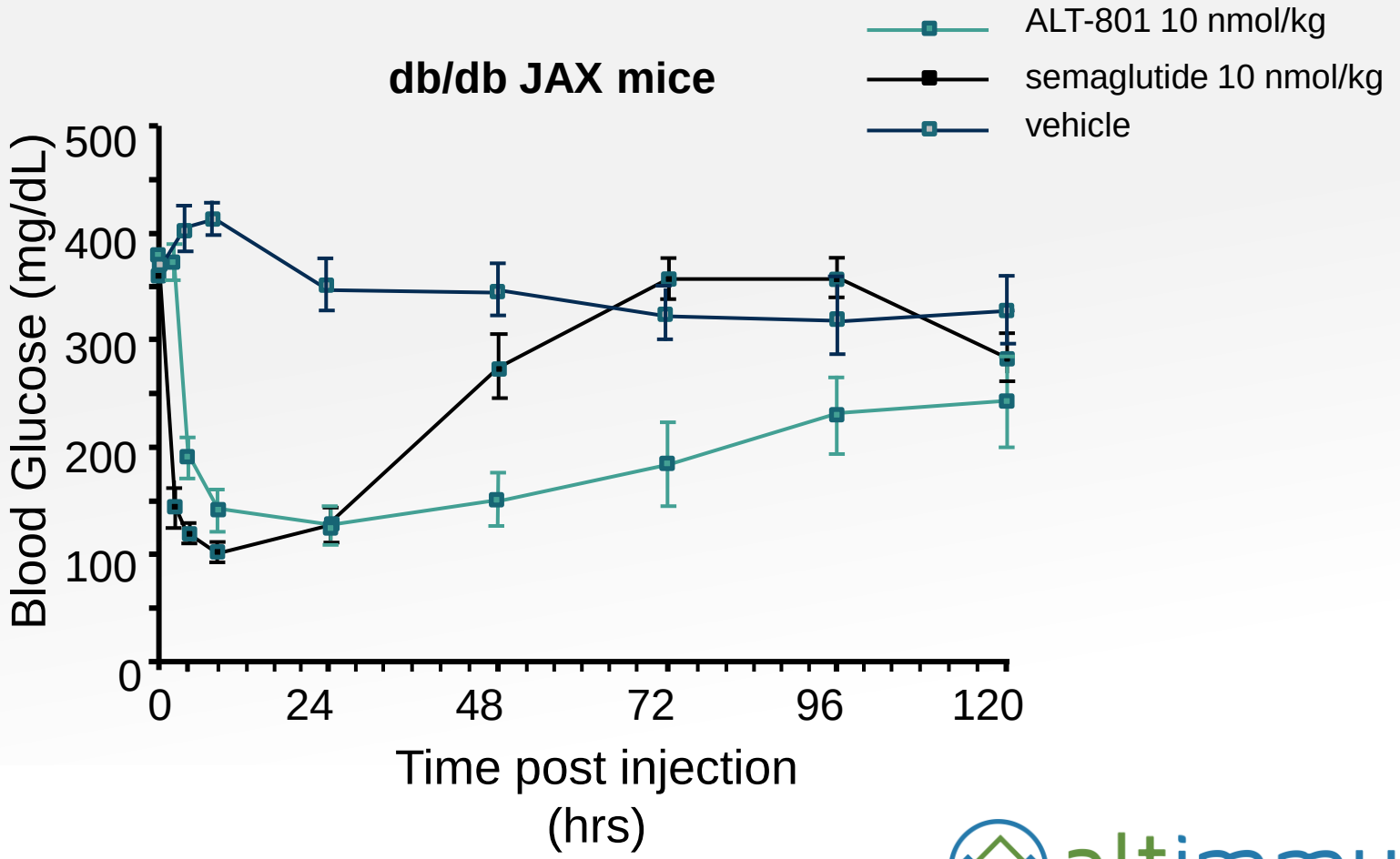
ALT-801 SIGNIFICANTLY IMPROVED GLUCOSE CONTROL

INCREASED POTENCY AND DURATION OF ACTION AFTER A SINGLE INJECTION

Control of Blood Glucose in db/db Diabetes Model



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ALT-801 – IND FILING FOR OBESITY IN Q4 2021

- **Novo Nordisk (semaglutide) and Lilly (tirzepatide)** have executed successful Phase 3 programs and significantly de-risked the regulatory path for approval for GLP-1 therapeutics for obesity
- **GI intolerability has been problematic for GLP-1 based treatments,** with side effects leading to high rates of treatment discontinuation
- **If the impressive weight loss and tolerability** of ALT-801 in the Phase 1 interim data are reflected in larger studies, ALT-801 could be ideally suited for this indication
- **ALT-801 IND in obesity to be filed in Q4 2021** with initiation of Phase 2 trial anticipated in Q1 2022

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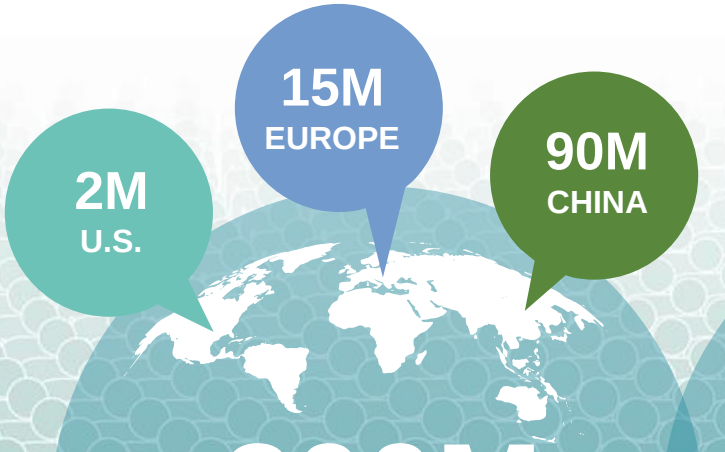
Chronic HBV: HepTcell

HepTcell: T CELL IMMUNOTHERAPEUTIC FOR CHRONIC HEPATITIS B

SIGNIFICANT OPPORTUNITY TO IMPROVE CURRENT HBV CURE RATES



~300M

People with chronic HBV infection worldwide

780,000+

deaths/year due to cirrhosis and liver cancer

~2.2M

Estimated prevalence of chronic HBV in USA

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CURRENTLY APPROVED HBV THERAPEUTICS DO NOT LEAD TO A CURE

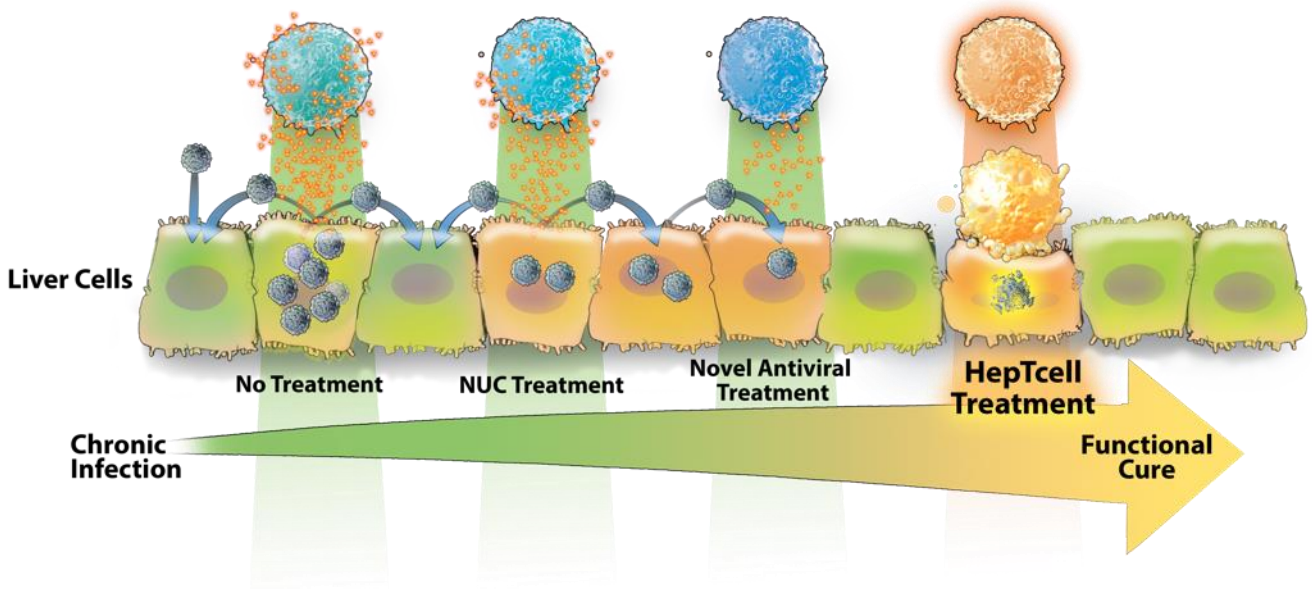
IMMUNE ACTIVATION WILL BE REQUIRED FOR SIGNIFICANT IMPACT

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



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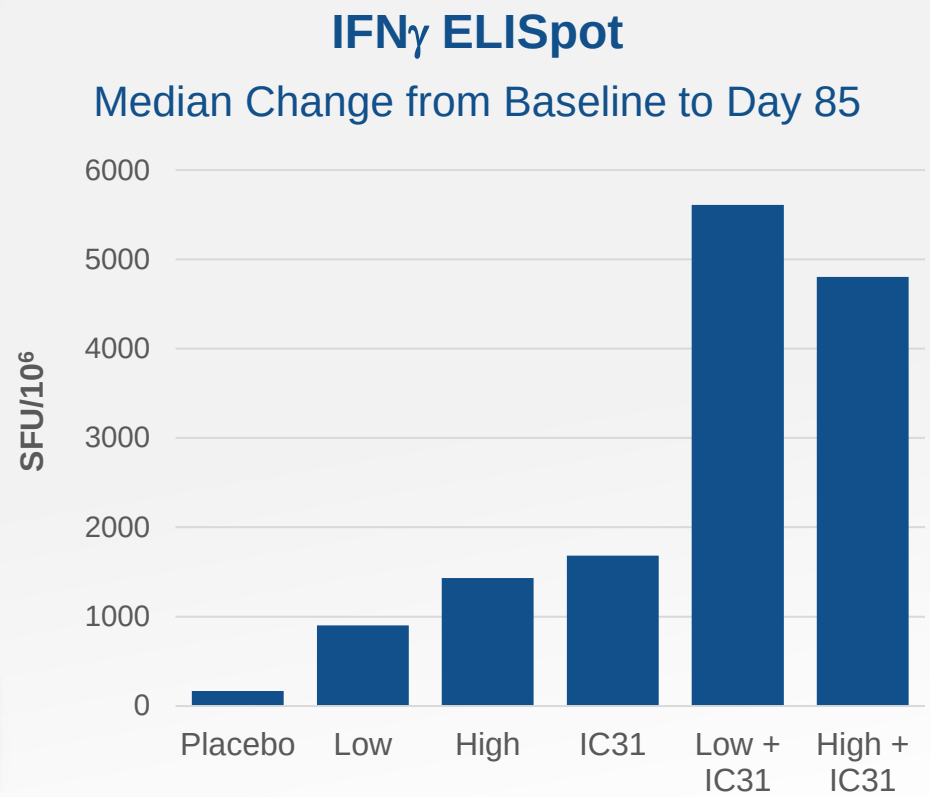
HepTcell: PHASE 1 SAFETY AND IMMUNOGENICITY STUDY

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

- Trial designed to evaluate response in population with unmet need and to model the response to HepTcell as used in combination therapy in broader 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
- Follow-up study phase of 48 weeks after the last dose will assess the safety and durability of response of treatment
- Study to be conducted at 20 sites in the US, Canada and Europe
- 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 expected H2 2022

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Summary

SUMMARY OF NEAR-TERM CATALYSTS

1. **US IND Filings for NASH & obesity in H2 2021**
2. **Phase 1 12-week MAD data readout in Q3 2021**
3. **Initiate 12-week US NAFLD study in Q3 2021**
4. **Initiate 24-week Phase 2 obesity trial Q1 2022**
5. **Initiate 52-week biopsy driven Phase 2 NASH Study in Q1 2022**

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ALTIMMUNE: INVESTMENT HIGHLIGHTS

1. **Developing portfolio with 3 multibillion-dollar indications**
   Obesity, NASH and Chronic Hepatitis B
2. **Recently generated impressive human data with ALT-801**
   >5% weight loss in 6 weeks using well-tolerated regimen without dose titration
3. **Multiple catalysts anticipated over the next 12 months**
   Data read-outs from multiple clinical programs
4. **Strong cash position to reach value-generating milestones**
   ~$227 million as of March 31, 2021

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THANK YOU