



# **Corporate Presentation**

August 2019

# Forward-looking Statement Disclosure

## Safe-Harbor Statement

Any statements made in this presentation relating to future financial or business performance, conditions, plans, prospects, trends, or strategies and other financial and business matters, including without limitation, the prospects for commercializing or selling any product or drug candidates, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. 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 Altimmune, Inc. (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: 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 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](http://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 OVERVIEW



Diversified pipeline of product candidates that address large market opportunities



Multiple near-term catalysts that will drive value



\$42M cash on hand to support development programs and sustain operations through catalysts



Management team and infrastructure in place to advance product candidates



\$31M market cap vs. \$56M book value (6/30/19) shows potential for significant ROI



# Diversified Product Pipeline

Multiple paths to value creation

Product		Preclinical	Phase I	Phase II	Phase III
Liver Diseases	ALT-801	NASH			
	HepTcell	Chronic Hepatitis B			
Immuno-Oncology	ALT-702	Immunostimulant			
Intra-nasal Vaccines	NasoShield	Anthrax		Funded by BARDA \$133.7M Potential Value	
	NasoVAX	Seasonal Influenza			





# LIVER DISEASE

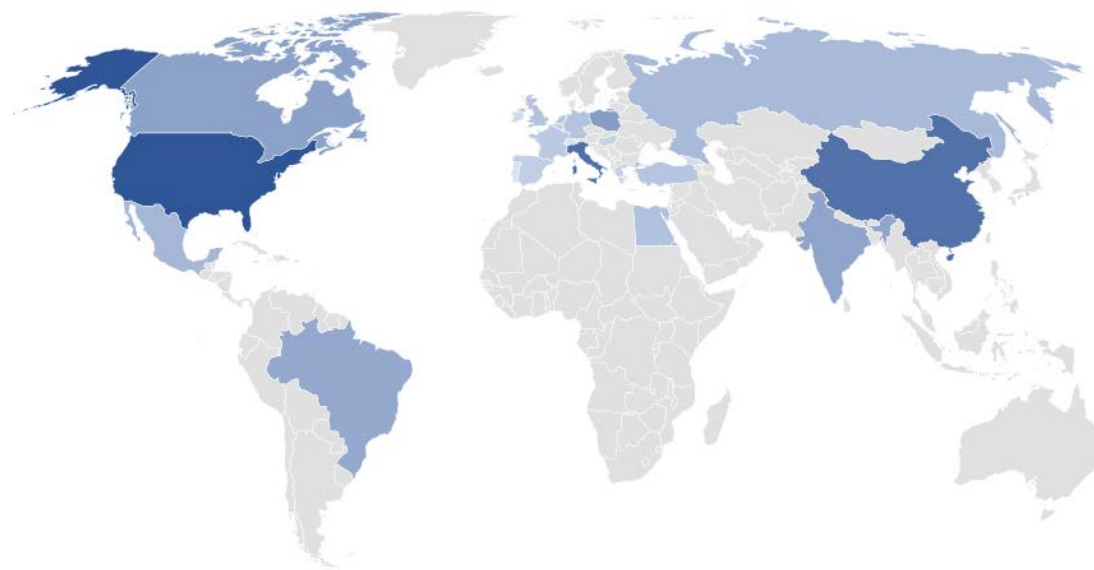
# ALT-801: Novel GLP-1/ Glucagon Dual Agonist for NASH

Significant opportunity to address a growing unmet need

- Estimated 16.5M people in the U.S. diagnosed with NASH, projected to increase to 27M by 2030
- Effects patients globally as obesity epidemic becomes more prevalent
- No approved therapies for NASH currently available

600 million

Obese people at risk for NASH

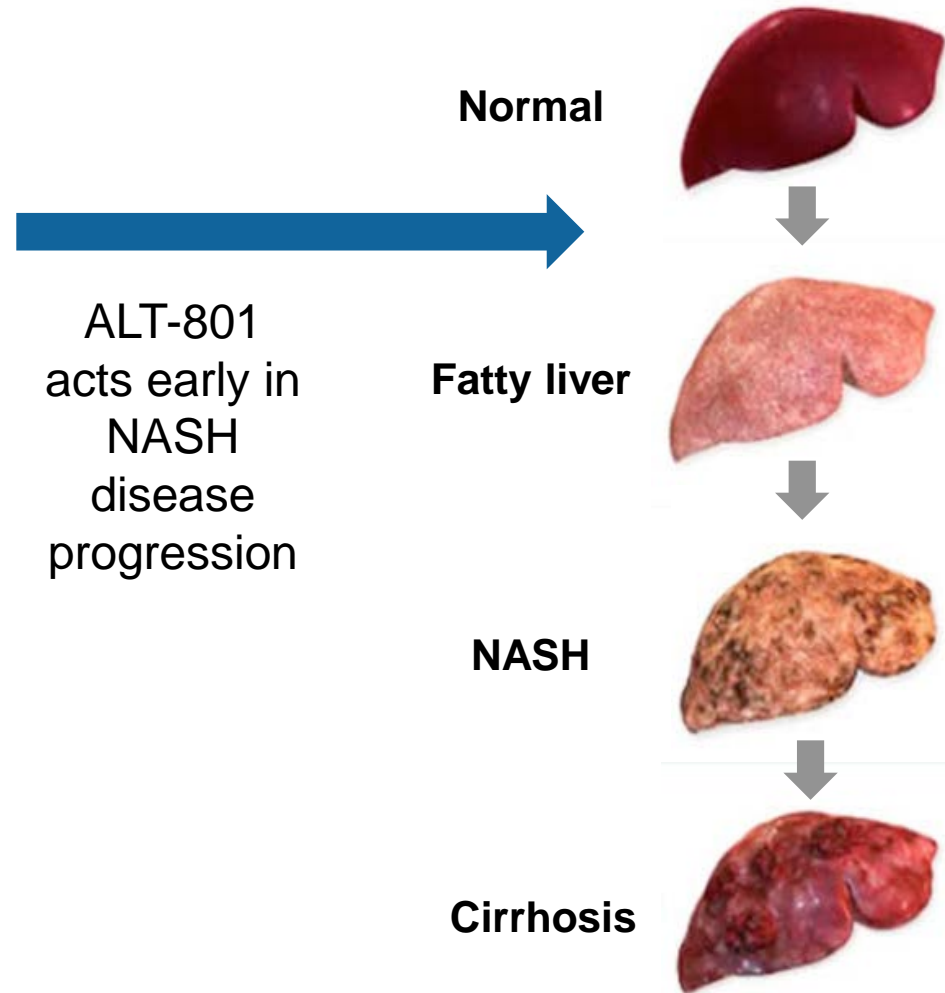


Obesity Rates:							
Western							
USA	Mexico	Canada	Europe	Russia	Brazil	China	India
36%	29%	29%	23%	23%	22%	6%	4%

# ALT-801: Metabolic Intervention for NASH

Progressive disease frequently starts with obesity/metabolic syndrome

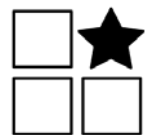
- Potent and balanced GLP-1/glucagon dual agonist treats a root cause of NASH – obesity
- Reverses both metabolic and hepatic dysfunctions
- By decreasing peripheral and liver fat, ALT-801 may reverse hepatic inflammation and fibrosis



# ALT-801: Potential Best in Class Product Profile

Well-differentiated candidate with compelling pre-clinical data

## DIFFERENTIATED

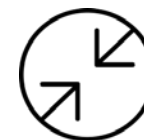
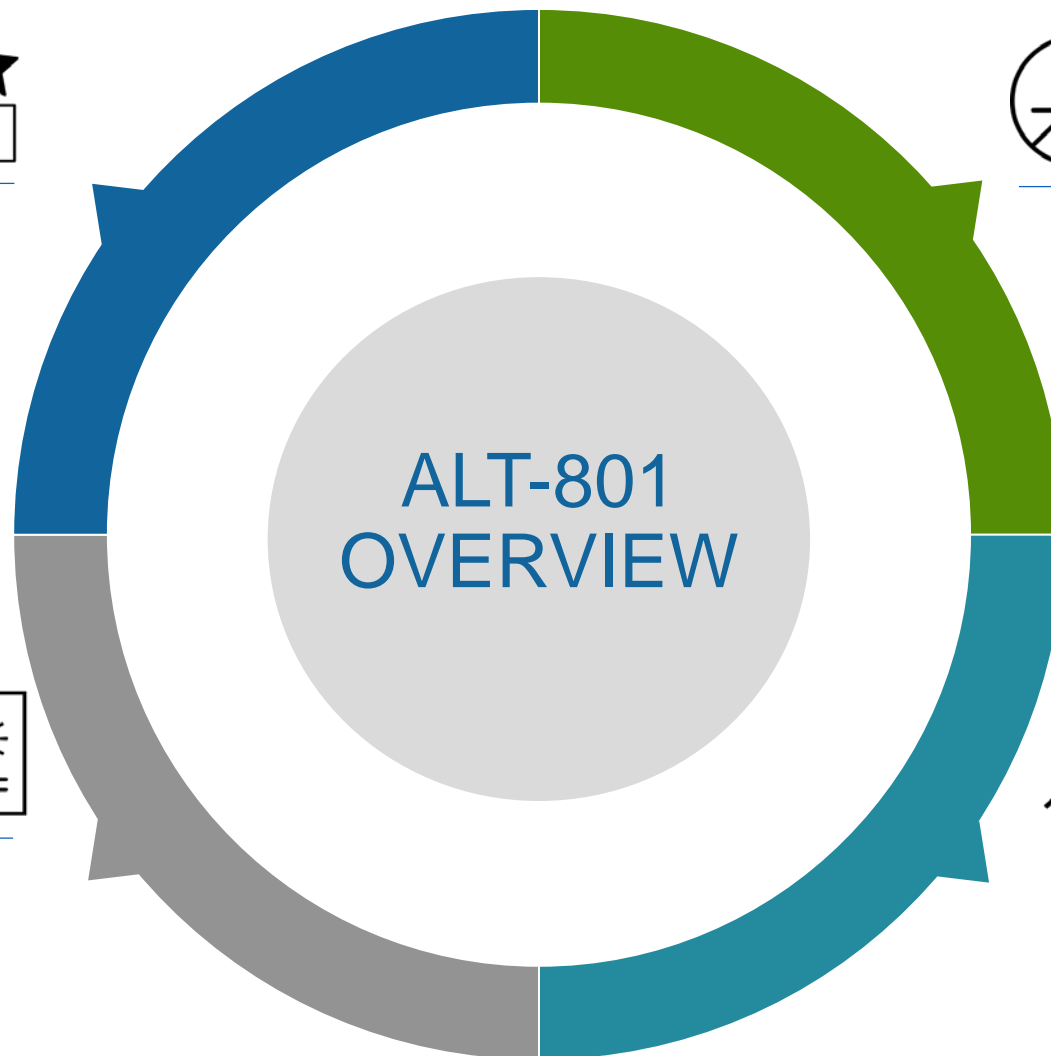


- Balanced dual agonist at GLP-1 and Glucagon receptors
- PK profile optimized for weekly dosing
- Potential for improved GI tolerability

## STRONG INTELLECTUAL PROPERTY



- Worldwide filings in 6 patent families; including a granted US patent with exclusivity  $\geq 2035$



## SUPERIOR PRE-CLINICAL DATA

Superior to semaglutide and elafibranor in:

- Overall weight loss
- Reduction in liver fat
- NAS score improvement
- Effects on fibrosis



## PATIENT FRIENDLY

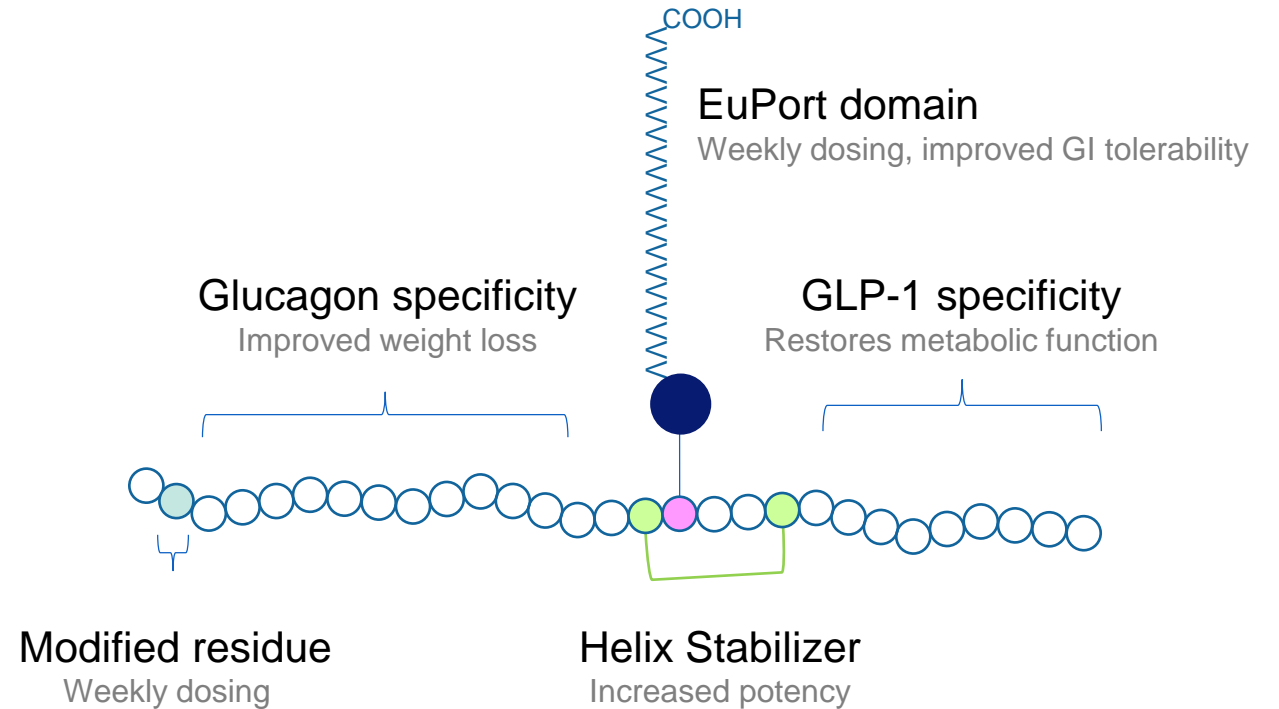
Aqueous solution compatible with 31-gauge needle to maximize comfort



# ALT-801: Structure is Key to Differentiation

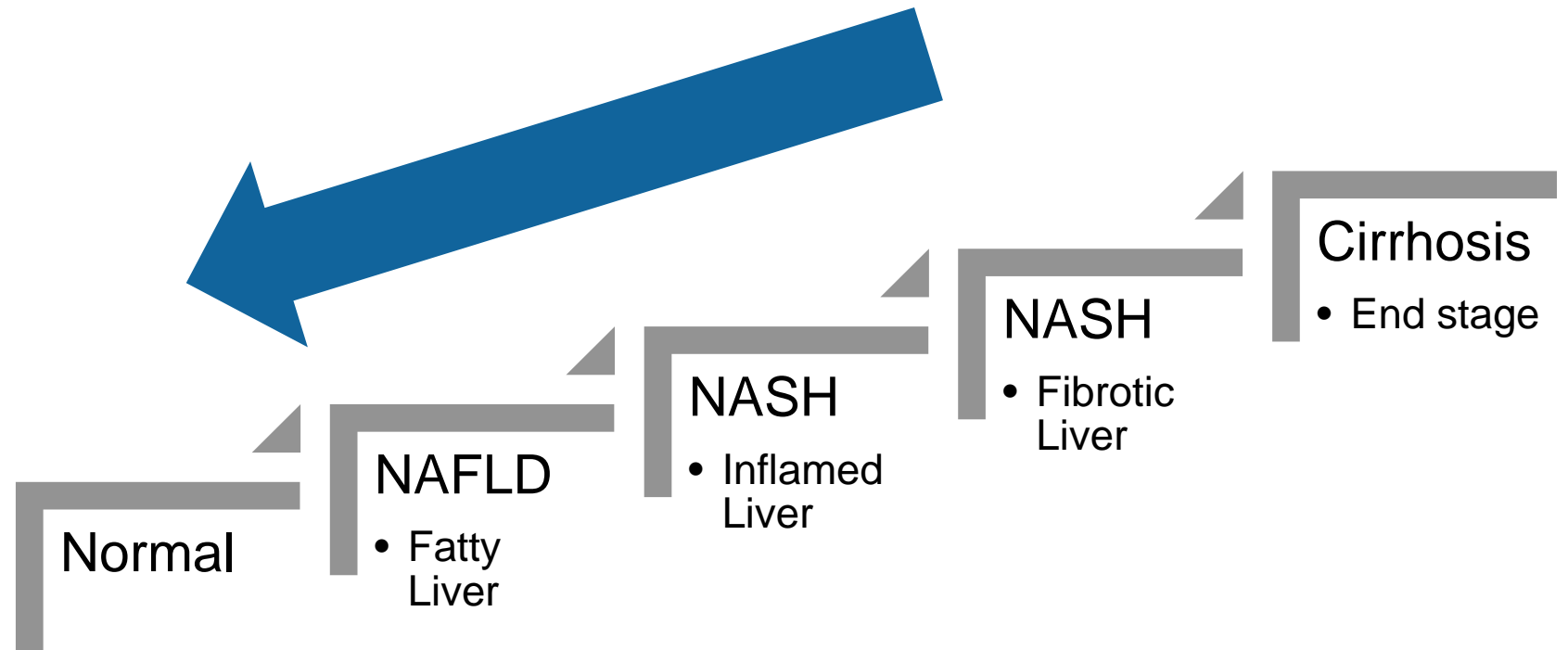
EuPort domain provides improved PK

- EuPort domain predicts weekly dosing with slower onset of action for improved tolerability
- Helix Stabilizer improves potency and function of EuPort domain
- Non-natural amino acid resists proteolytic degradation



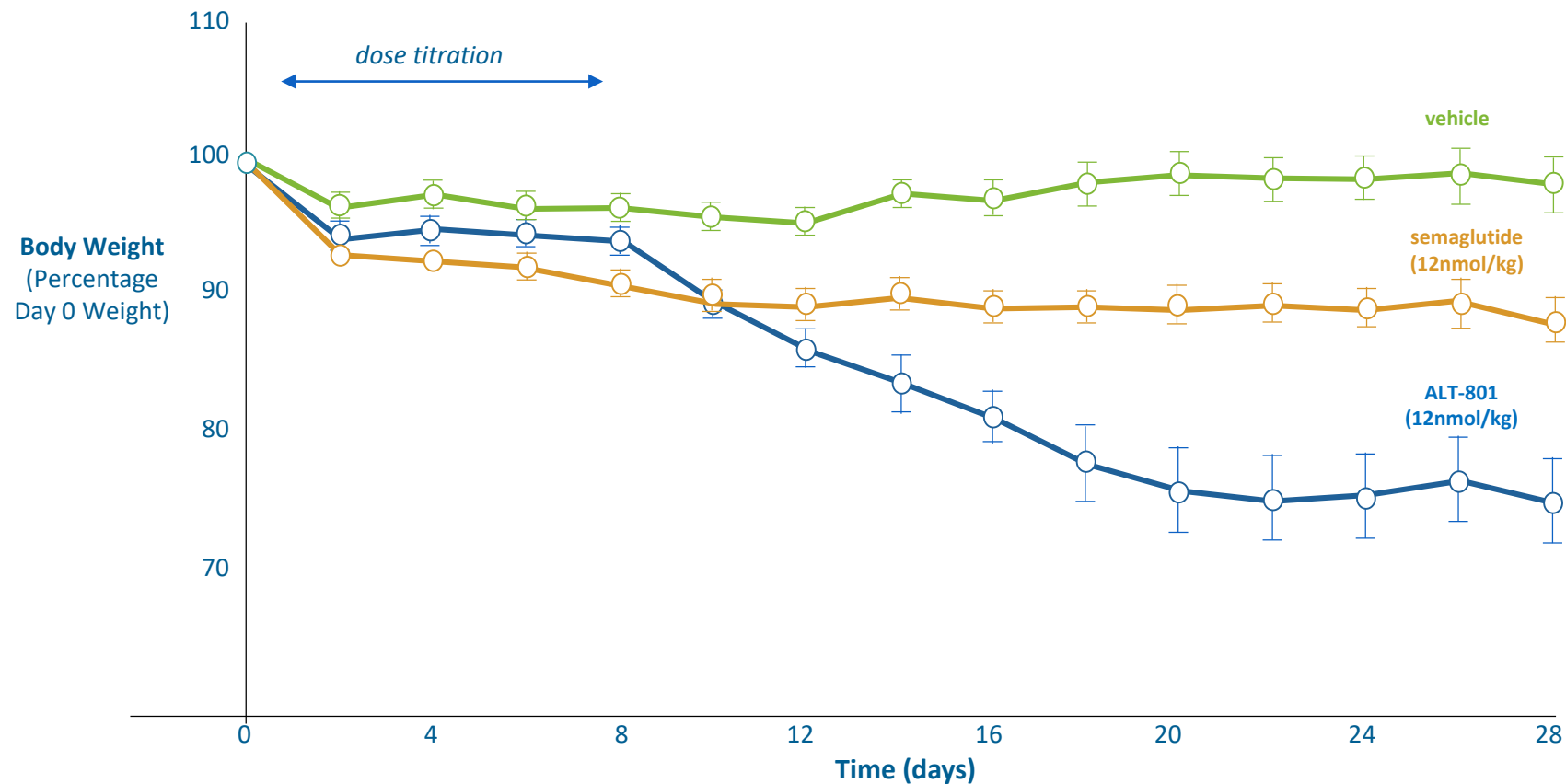
ALT-801

SUBSTANTIAL  
WEIGHT LOSS  
( $\geq 10\%$ ) CAN  
REVERSE NASH  
PROGRESSION<sup>1</sup>



ALT-801

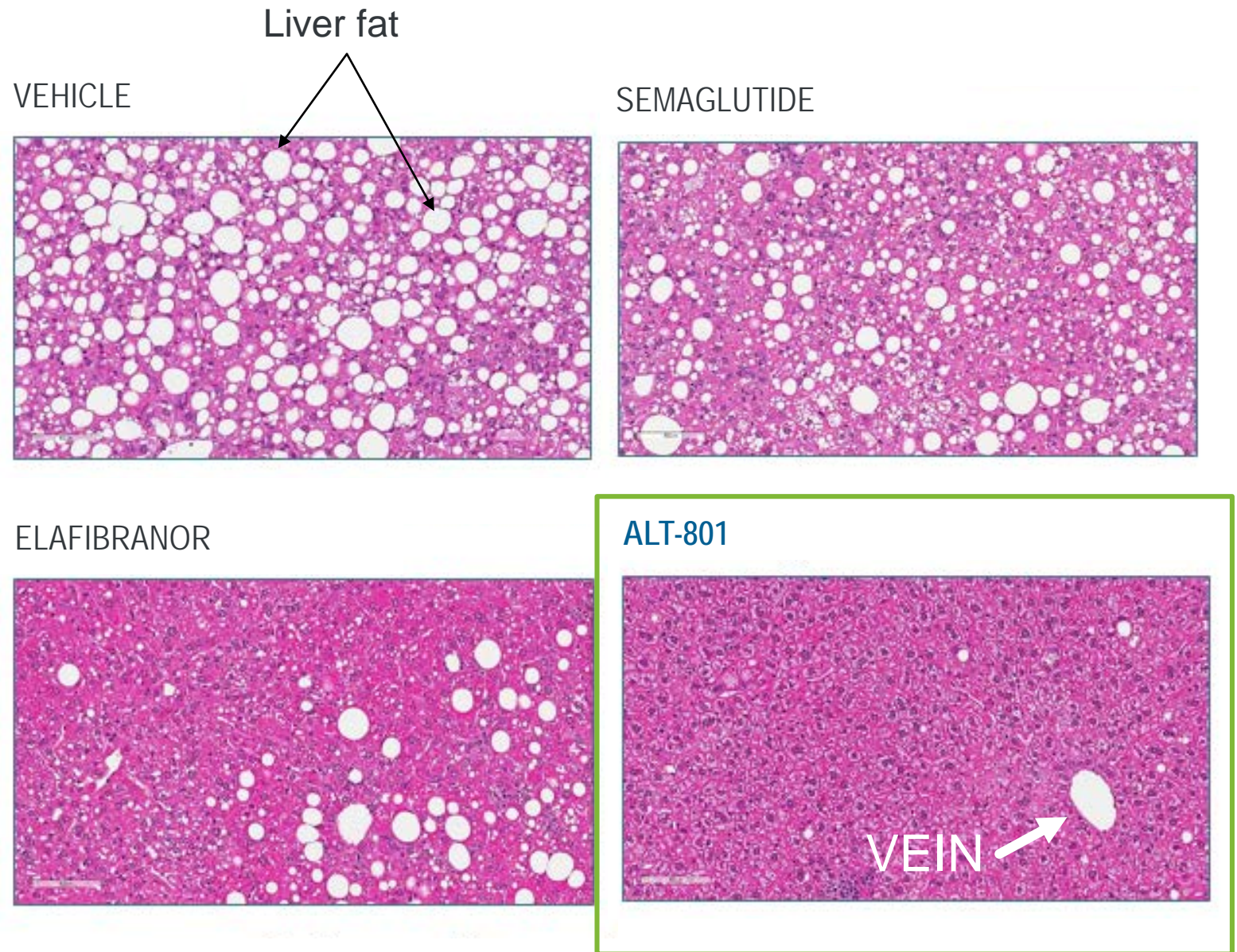
25%  
WEIGHT  
LOSS OVER  
ONE MONTH



- More than **2x** the weight loss of **semaglutide**
- Body weight decreased to **normal range**

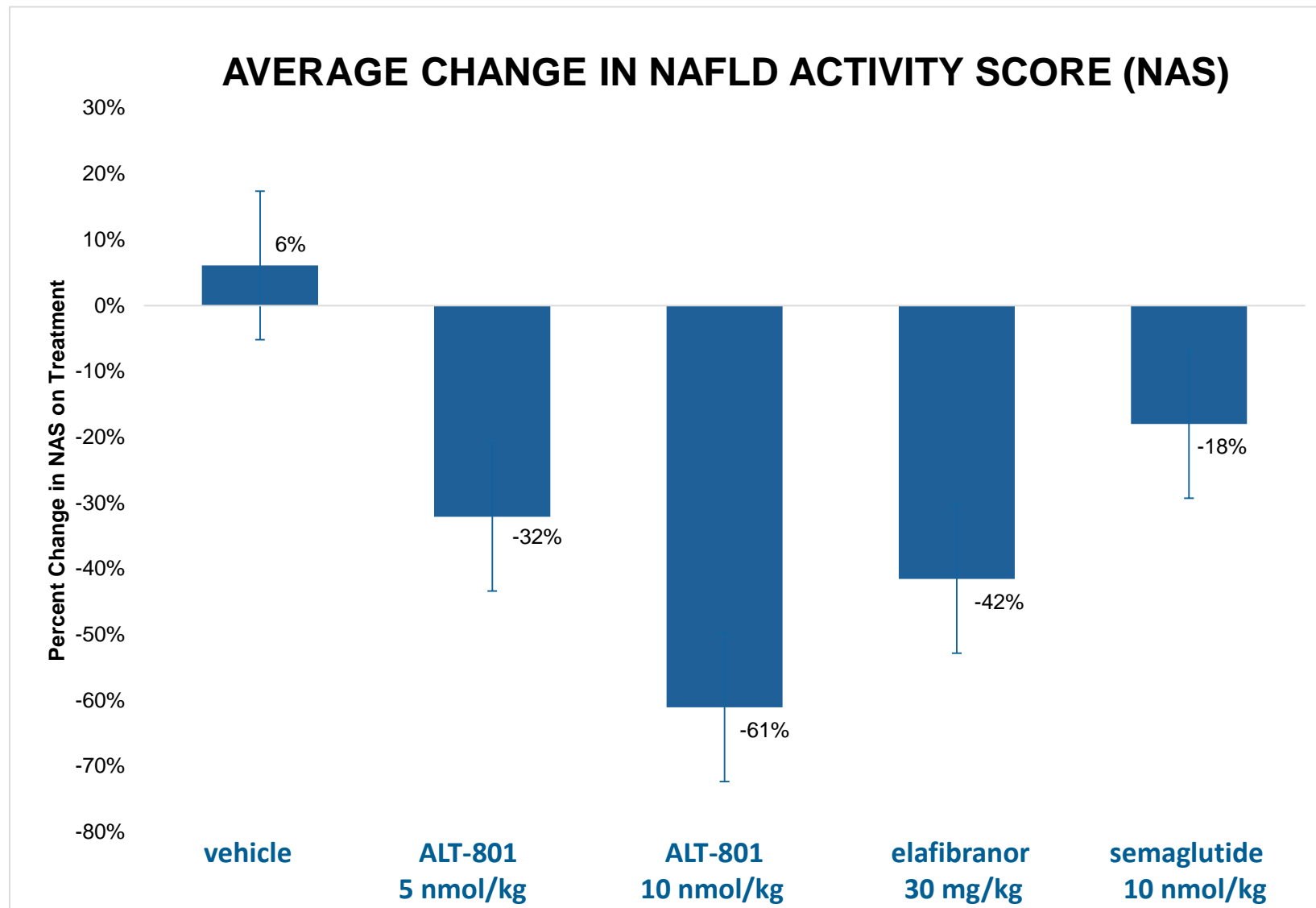
ALT-801

GREATER  
REDUCTION  
IN LIVER FAT



# ALT-801

## GREATER REDUCTION IN NAFLD ACTIVITY SCORE (NAS)



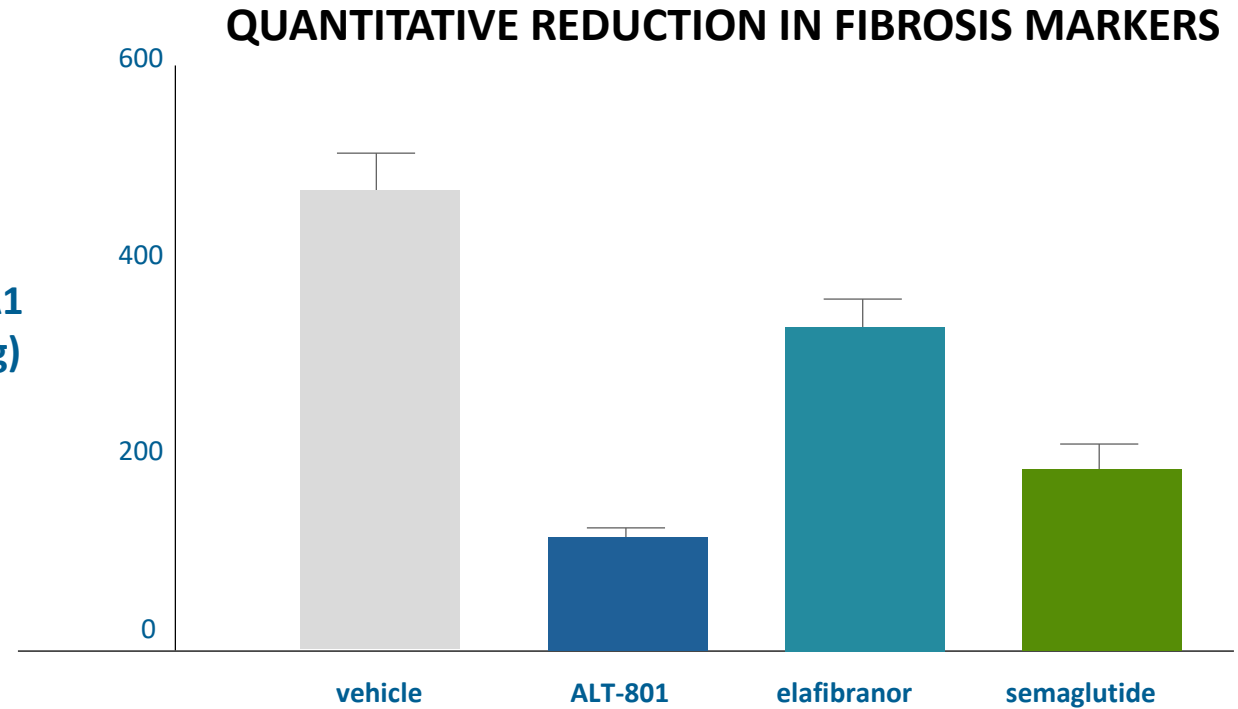
Score of each component of the NAS: Steatosis(0–3); Lobular inflammation:(0–3); Ballooning: (0–2)  
The % is based on mean of individual animal responses pre- and post-treatment biopsy.



# ALT-801

## GREATER IMPACT ON FIBROSIS

Liver COL1A1  
content (mg)



ALT-801 showed **significant decreases** in Type 1 collagen, a key component of fibrosis

Similar pattern of effects were noted for galectin-3, a **marker for fibrosis**

# ALT-801

## GLP-1/Glucagon Dual Agonist for NASH

### Differentiated

- Balanced and potent dual GLP-1 and glucagon agonist
- Superior therapeutic activity in accepted preclinical models
- Novel peptide stabilization mechanisms
- PK indicates better tolerability
- Weekly dosing

### Development Plan

- File IND in 2H 2020
- Phase 1 study with mechanistic readout in 1H 2021
- Prosecute 6 global supporting patent families
- Evaluate aligned disease indications including obesity and type 2 diabetes

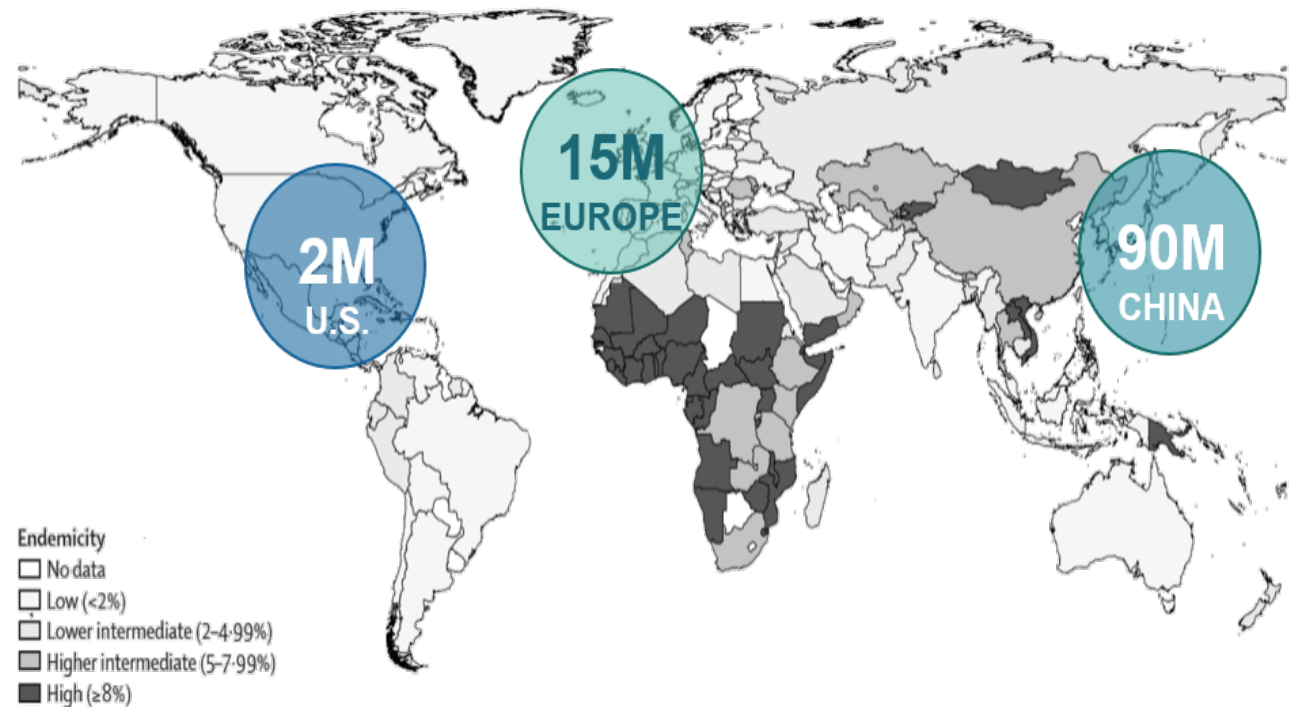
# HepTcell: T Cell Immunotherapeutic For Chronic Hepatitis B

Significant opportunity to improve current HBV cure rates

- Nearly 300 million people with chronic HBV infection worldwide
- Over 780,000 deaths/year due to cirrhosis and liver cancer
- Estimated prevalence of chronic HBV in USA is 2.2 million

**257 million**

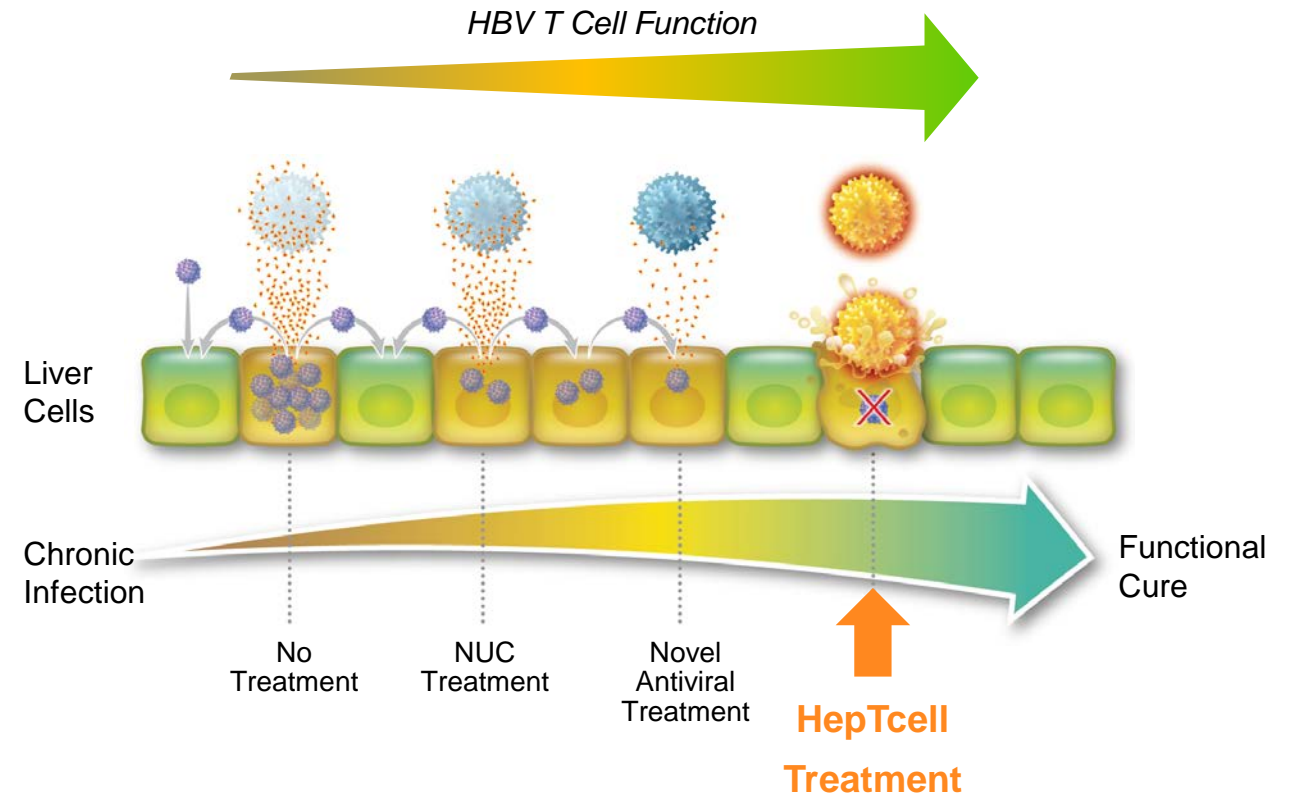
HBV carriers worldwide



# 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 infection
- Novel direct-acting antivirals alone unlikely to provide functional cure
- Breaking T cell immune tolerance is key to functional cure
- HepTcell is designed to “wake up” dormant T-cells to eliminate infection



# HepTcell: Phase 1 Safety And Immunogenicity Study

Activation of immune-tolerized T cells

## Population

60 HBeAg<sup>-</sup> chronic HBV patients

Well controlled on licensed antivirals (entecavir or tenofovir)

## Design

3 injections 28 days apart

4 different regimens vs placebo and adjuvant alone

## Results

All regimens well tolerated

No liver flares or autoimmune events

Increased T cell response to HBV peptides in adjuvanted regimens



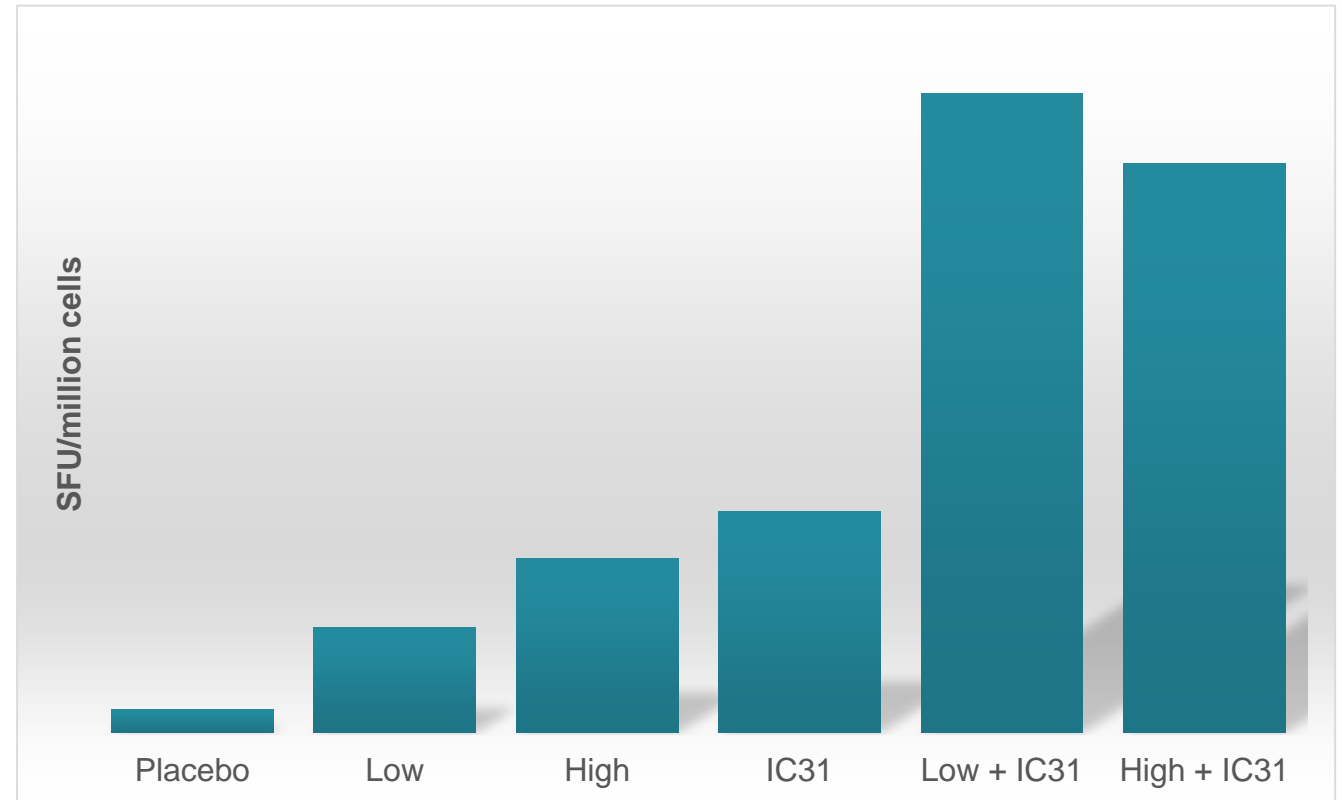
# HepTcell: Anti-HBV T-cell Response After 3 Injections

Clear activation of HBV-specific T cells

- HepTcell breaks immune tolerance in chronic hepatitis B patients
- T cell responses strongest when combined with IC31 adjuvant
- Activated T cells expected to recognize all HBV genotypes

## IFN $\gamma$ ELISpot

Median Change from Baseline to Day 85



# HepTcell

## Specific Immunotherapy For Chronic HBV

### Differentiated

- Mechanism of action is complimentary to currently approved antivirals and other products in development
- Restores immune control of infection instead of targeting viral pathway
- Excellent safety profile, especially in comparison to other non-specific immunomodulators

### Development Plan

- Exploit immune activation of HepTcell in combination with other novel HBV therapeutics
- Seek commercial partner with complementary therapeutic product
- Prepare for Phase 2 program in expanded chronic HBV patient population
- File IND in 2020 following successful pre-IND meeting held with FDA in June 2019

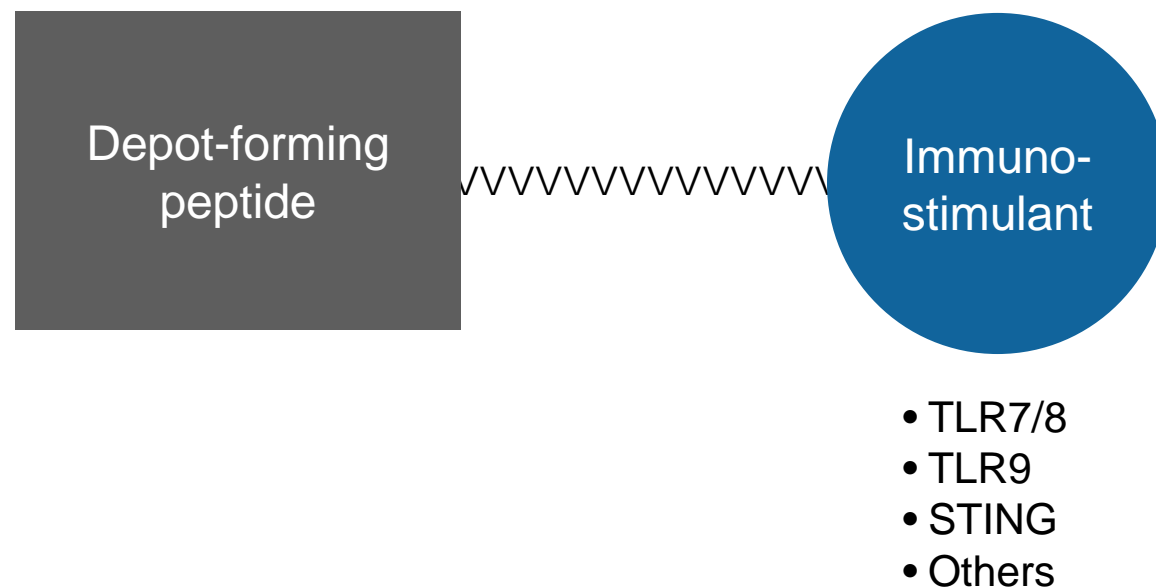


IMMUNO-ONCOLOGY

# ALT 702: Anchored Immunostimulant Without Systemic Toxicity

Platform technology solves immunostimulant safety issue

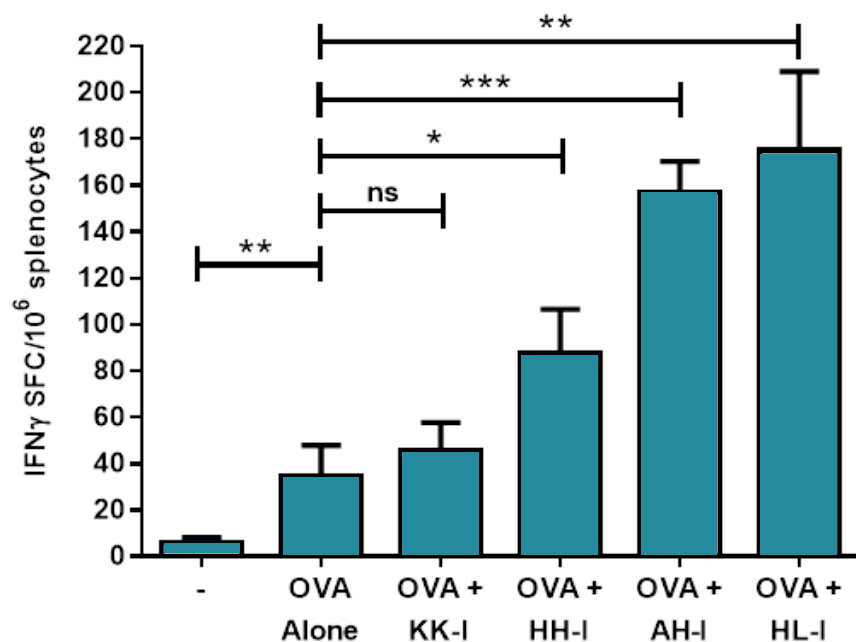
- Reverses tumor immunosuppression and recruits inflammatory cells to tumor
- TLR7 and TLR7/8 immunostimulants has been limited by toxicity
- Synthetic peptide technology creates depot following administration
- Depot eliminates systemic effects while enhancing local immune stimulation



# ALT 702: Anchored Immunostimulant Without Systemic Toxicity

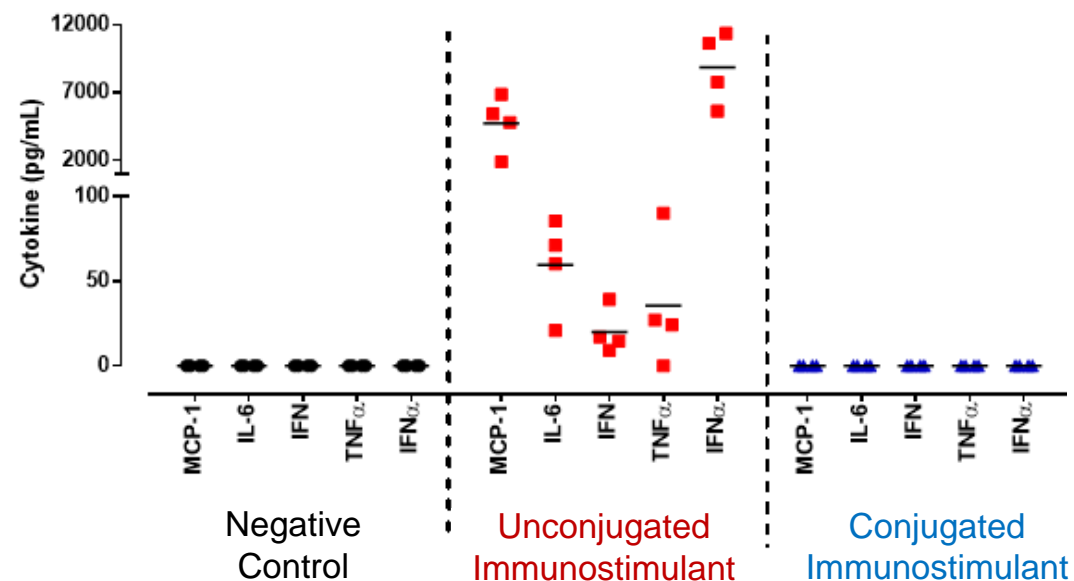
Uncoupling immune-mediated efficacy from severe toxicity

## Strong Immune Stimulation



**450% increase** in Activated T cells

## Increased Safety



No systemic inflammatory cytokines



# ADVANTAGES OF ALT-702

- Potent TLR7/8 agonist for cancer immunotherapy
- Anchored approach prolongs immune stimulation while avoiding systemic toxicity
- Platform technology can be applied to other immunostimulants or therapeutics
- Fully synthetic product - Low COGs
- IND expected in 2021





INTRANASAL VACCINES

# NasoShield: Differentiated Anthrax Vaccine

Significant opportunity to improve protection in a bioterrorism event

## Competition

- BioThrax® - Only approved vaccine
  - 3 dose regimen
  - Requires an adjuvant
  - Subcutaneous injections
- NuThrax® (AV7909) – Phase 3
  - 2 dose regimen
  - Requires 2 adjuvants
  - Intramuscular injections

## NasoShield

- Single dose, no adjuvants
- Intranasal spray
- Faster protection
- Superior logistics
  - No cold chain distribution
  - No injection required
  - Self-administration

# NasoShield: Funded Through a Development Contract with BARDA

Phase 1b to be initiated in 2019

- Received \$3.7M BARDA funding to initiate Phase 1b
- \$133.7M total contract value through Phase 2
- Stockpiling of vaccine may occur prior to licensure<sup>1</sup>
  - Nuthrax® initial stockpiling valued at \$261M with a \$1.5 billion total potential contract value



# NasoVAX: Innovative Approach Toward Intranasal Influenza Vaccine

Significant opportunity to improve vaccinations against a leading cause of death

- CDC estimates 1M hospitalizations and 79K deaths during 2017- 2018 flu season
- Since 2003, vaccine effectiveness ranges from 10% to 60%
- Most flu vaccines require significant lead time to manufacture

## POLITICO

HEALTH CARE

**Exclusive: Trump to order drive for improved flu vaccine**

## PBS NEWS HOUR

**Flu shot only 36 percent effective, making bad year worse**

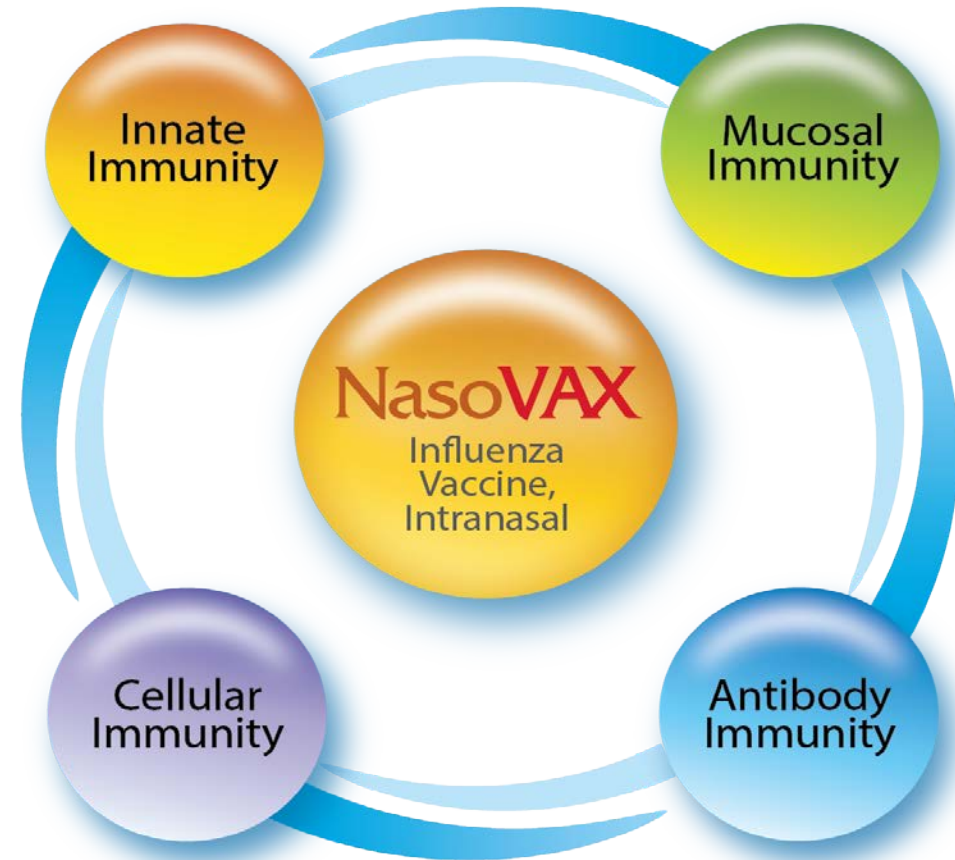


# NasoVAX: Phase 2 Data Validates Multiple Levels of Differentiation

Potential for a more effective influenza vaccine through better and longer lasting immunity

## Phase 2 Study Highlights

- HAI and microneutralization antibody similar to licensed Fluzone vaccine
- Durability of immune response greater than 12 months
- Robust mucosal and cellular immunity induced unlike Fluzone
- Excellent safety profile, tolerability not different from placebo



# Strong Intellectual Property Portfolio

Significant patent term remaining in all families

**ALT-801**



2 Granted US patents | Patent applications other territories | Expiry  $\geq$  2035

**HepTcell**



Granted US patent | Patent applications other territories | Expiry  $\geq$  2033

**ALT-702**



Granted US patent | Patent applications other territories | Expiry  $\geq$  2034

**NasoShield**



Granted US, EP, JP patent | Expiry  $\geq$  2032

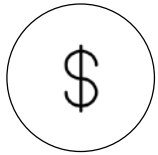
**NasoVAX**



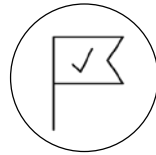
Granted US, EP, JP patent | Patent applications other territories | Expiry  $\geq$  2032

# FINANCIAL HIGHLIGHTS

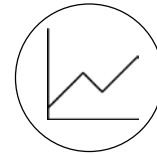
Altimune is well positioned to advance multiple product candidates



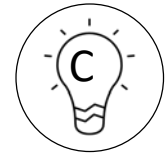
**\$42 MILLION  
CASH ON HAND**  
at June 30, 2019



**\$10 MILLION  
ANNUAL REVENUE**  
in each of last 2 years  
from U.S. government  
development contracts



**15.3 MILLION SHARES  
OUTSTANDING**  
and 10.1 million warrants  
for 25.4 million shares on a  
fully diluted basis



**R&D FOCUSED**  
27 employees with 19  
primarily engaged in  
research and development

# Strong Executive Management Team

**Vipin K. Garg, PhD**

President and Chief Executive Office



**Will Brown, CPA, MBA**

Chief Financial Officer



**Scot Roberts, PhD**

Chief Scientific Officer



**Bertrand Georges, PhD**

Chief Technology Officer



**José Ochoa, JD**

Chief Business Officer







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