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NASDAQ: ALT

CORPORATE PRESENTATION

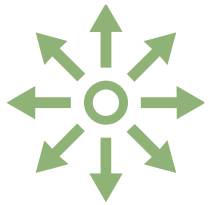
March 2020

FORWARD-LOOKING STATEMENTS

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. 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.

INVESTMENT HIGHLIGHTS



Developing **next generation peptide therapeutics** for liver disease and oncology

Proprietary **intranasal vaccine platform** ideally suited for rapid response to pandemic situations

Near-term **value-driving catalysts with sufficient cash and investments on hand**

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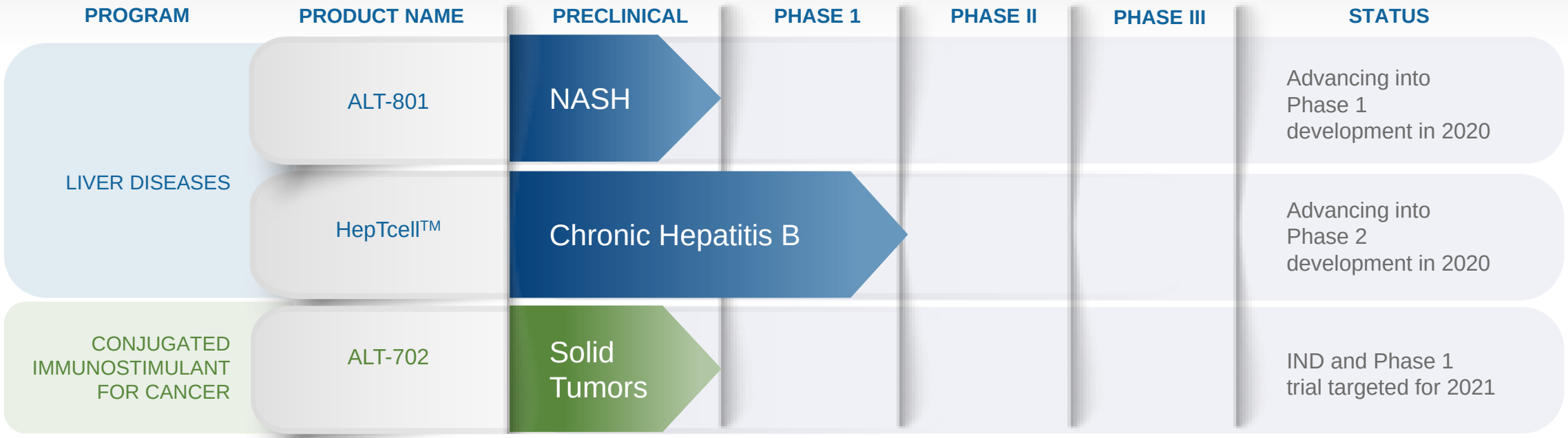
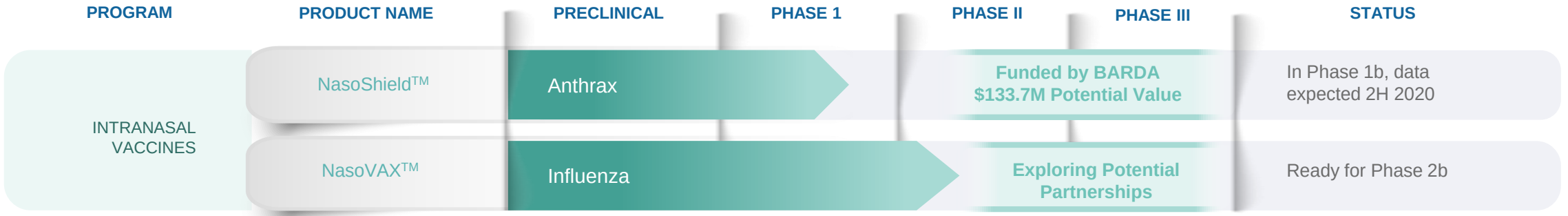
DEVELOPMENT PIPELINE



Programs developed with external funding



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LIVER DISEASE

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 develop NAFLD** recurrence one year after liver transplant—the underlying metabolic disease is still present[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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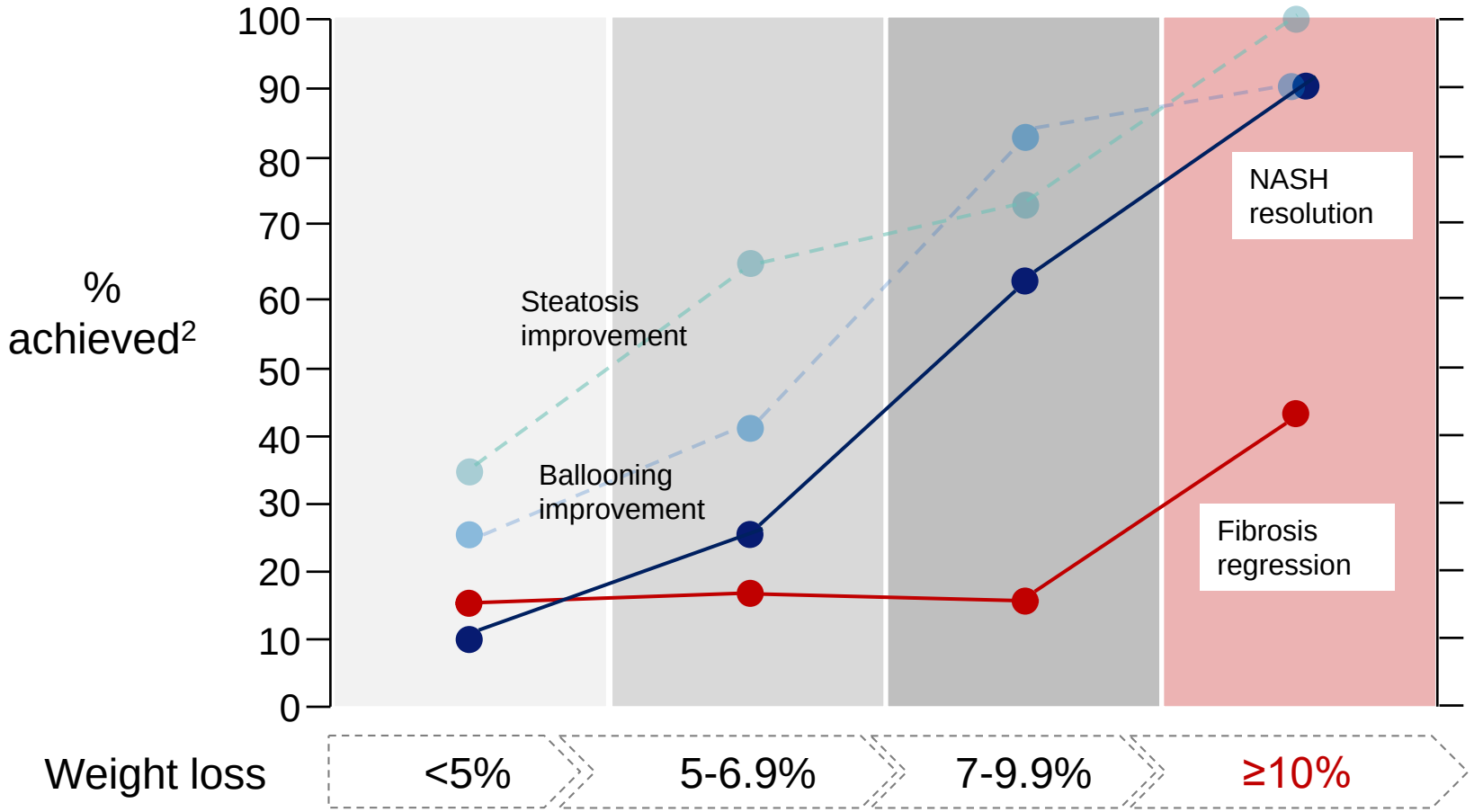
SUBSTANTIAL BODY WEIGHT LOSS IS NECESSARY TO BLUNT NASH PROGRESSION[1]

10% OR MORE WEIGHT LOSS MUST BE ACHIEVED



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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SNAPSHOT OF COMPOUNDS IN ADVANCED NASH DEVELOPMENT

MOST AGENTS FAIL TO ACHIEVE 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	2.2%
AKR-001 (70 mg)	Ritchie, M 2020[5]	FGF21 agonist	no change
Firsocostat	Lawitz, EJ 2018[6]	ACC inhibitor	no change
Elafibranor	Ratziu, V 2016[7]	PPARα/δ agonist	no change

† 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]Ratziu, V, et al. (2016) Gastroenterol 150: 1147-59

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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

SIGNIFICANT REDUCTIONS IN

body weight

liver fat, inflammation and resulting fibrosis

blood glucose

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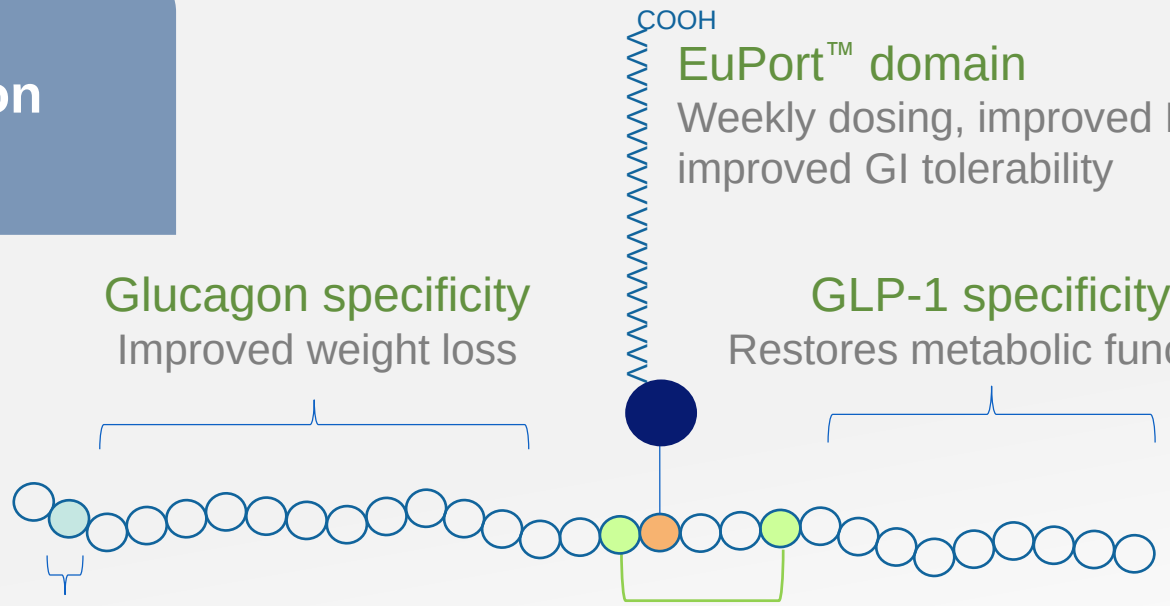
ALT-801: RATIONALLY DESIGNED AND HIGHLY DIFFERENTIATED

PROPRIETARY EuPort™ DOMAIN PROVIDES PROLONGED SERUM HALF-LIFE AND REDUCED PEAK CONCENTRATION

Balanced GLP-1:Glucagon Agonism



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

ALT-801: BALANCED 1:1 GLP-1/ GLUCAGON AGONISM

KEY TO ACHIEVING IMPROVED WEIGHT LOSS

- By activation of a 2nd mechanism, GLP-1/glucagon receptor dual agonists promote greater weight loss than GLP-1 agonists alone
- As demonstrated by ALT-801 in animal models, dual agonists have potential for greater weight loss with lower dose
- Sustained effects on both receptors are necessary to achieve improved weight loss
- Single receptor-biased ligands retain effects on only one receptor over a prolonged dosing period[1]
- By achieving 1:1 balance, the synergies of GLP-1 and glucagon are maintained throughout the entire dosing period

1 Day JA, et al. Peptide Science 2012;98:443-50

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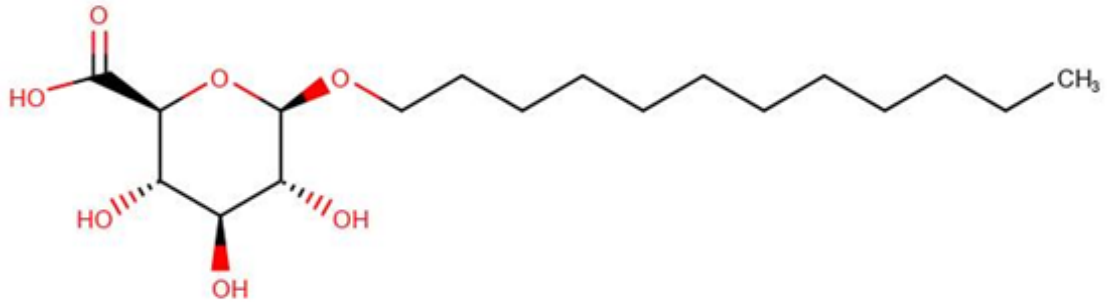
ALT-801: IMPROVED PK FOR BETTER GI TOLERABILITY

PROLONGED SERUM HALF-LIFE AND REDUCED PEAK CONCENTRATION MAY LEAD TO BETTER TOLERABILITY

- EuPort™ domain has surfactant-like properties – containing a water-soluble portion and a fat-soluble portion:



- When conjugated to a small peptide the EuPort domain can:
  - Slow the entry of the peptide into the blood lowering the peak concentration (C_{max}) of the peptide for improved tolerability
  - Significantly extend the half-life ($t_{1/2}$) of the peptide from minutes to a week or more which has been shown to improve tolerability for GLP-1 receptor agonists[1]

[1]*Bettge, K., et al. (2017) Diabetes Obes Metab (2017) 19: 336-347*

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ALT-801: SUMMARY OF NON-CLINICAL STUDIES COMPLETED TO DATE

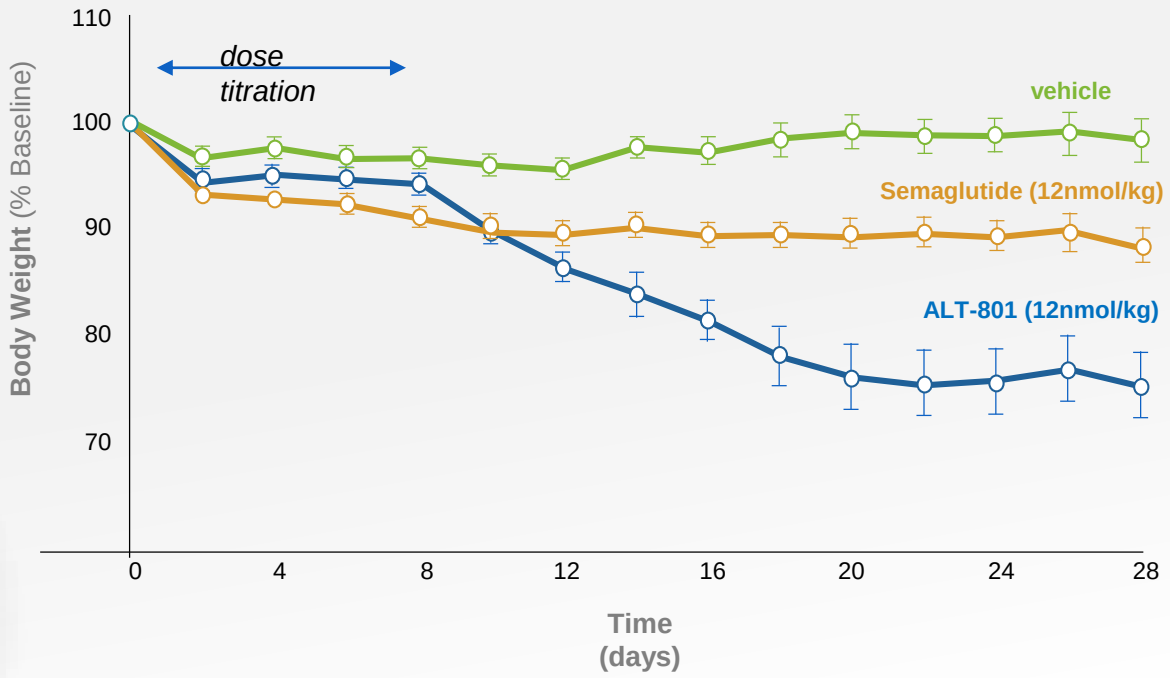
THOROUGH INVESTIGATION OF COMPOUND CHARACTERISTICS

Species	Model	Treatment	Location	Results	Assessment
Mouse	Gubra DIO	12 weeks	Gubra (Denmark)	25% body weight loss 68% liver weight loss 74% decrease in fibrosis	ALT-801 returns animals to lean normal body/liver weight
Mouse	Diet Induced Obesity	4 weeks	The Jackson Laboratory (USA)	25% body weight loss	ALT-801 returns animals to lean normal body weight
Rat	Diet Induced Obesity	4 weeks	Charles River (USA)	40% body weight loss 52% liver weight loss	ALT-801 returns animals to lean normal body/liver weight
Mouse	Primary pharmacology	Single Dose	The Jackson Laboratory (USA)	Normalized glucose	ALT-801 more potent that semaglutide with prolonged gluco-regulatory effect
Mouse	PK	Single Dose	The Jackson Laboratory (USA)	ALT-801 later Tmax, lower Cmax vs semaglutide	More gradual PK for improved tolerability
Rat	PK	4 weeks	Charles River (USA)	Concentration still rising at 8hr	ALT-801 later Tmax, lower Cmax vs semaglutide
Minipig	PK	Single dose	Sinclair Research (USA)	$T_{1/2}$ 52hr, MRT 86hr	ALT-801 $T_{1/2}$ and MRT longer than literature standard (semaglutide) in minipigs
Human	Receptor activation	Cells in vitro	DiscoverX (USA)	GLP-1 EC_{50} 38pM Glucagon EC50 42pM	ALT-801 highly potent, evenly balanced dual agonist

ALT-801

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**

Body weight decreased to **lean normal range**

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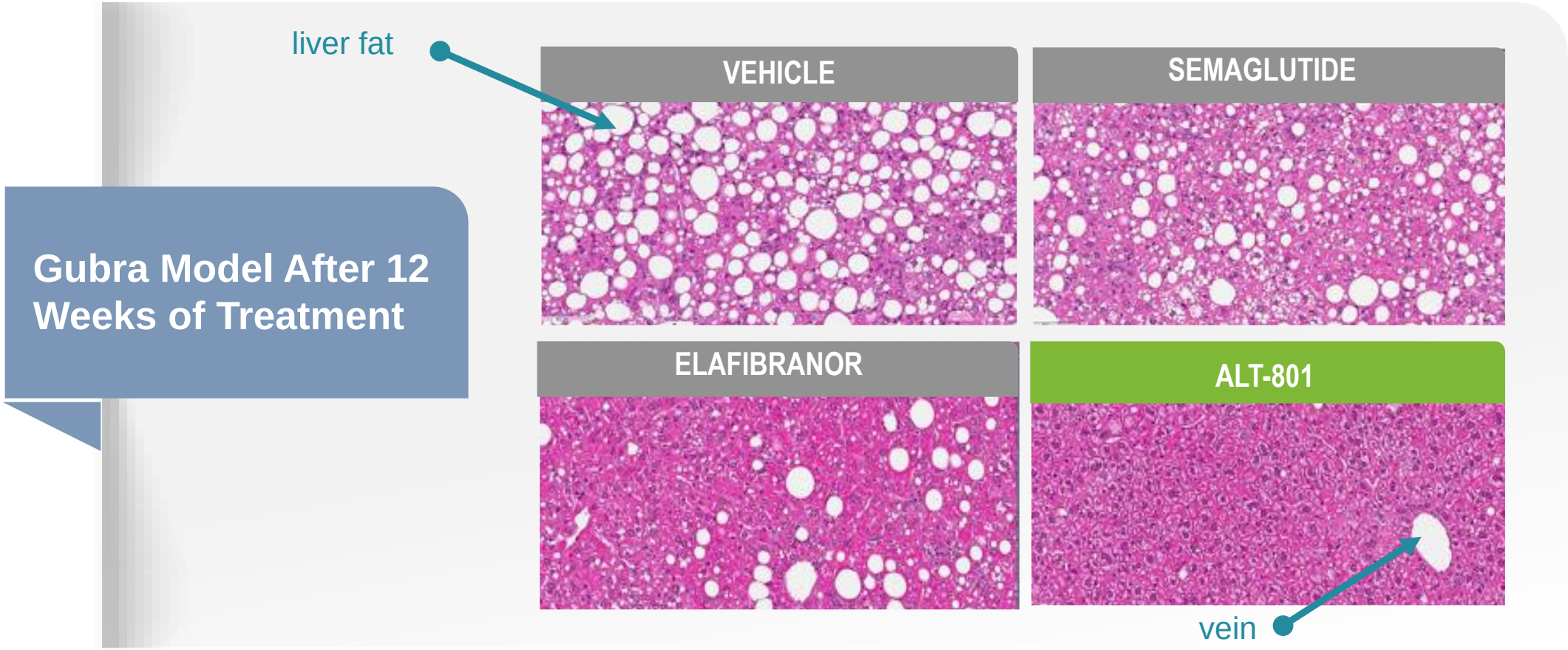
REDUCTION IN LIVER FAT TO CHOW-FED LEAN NORMAL



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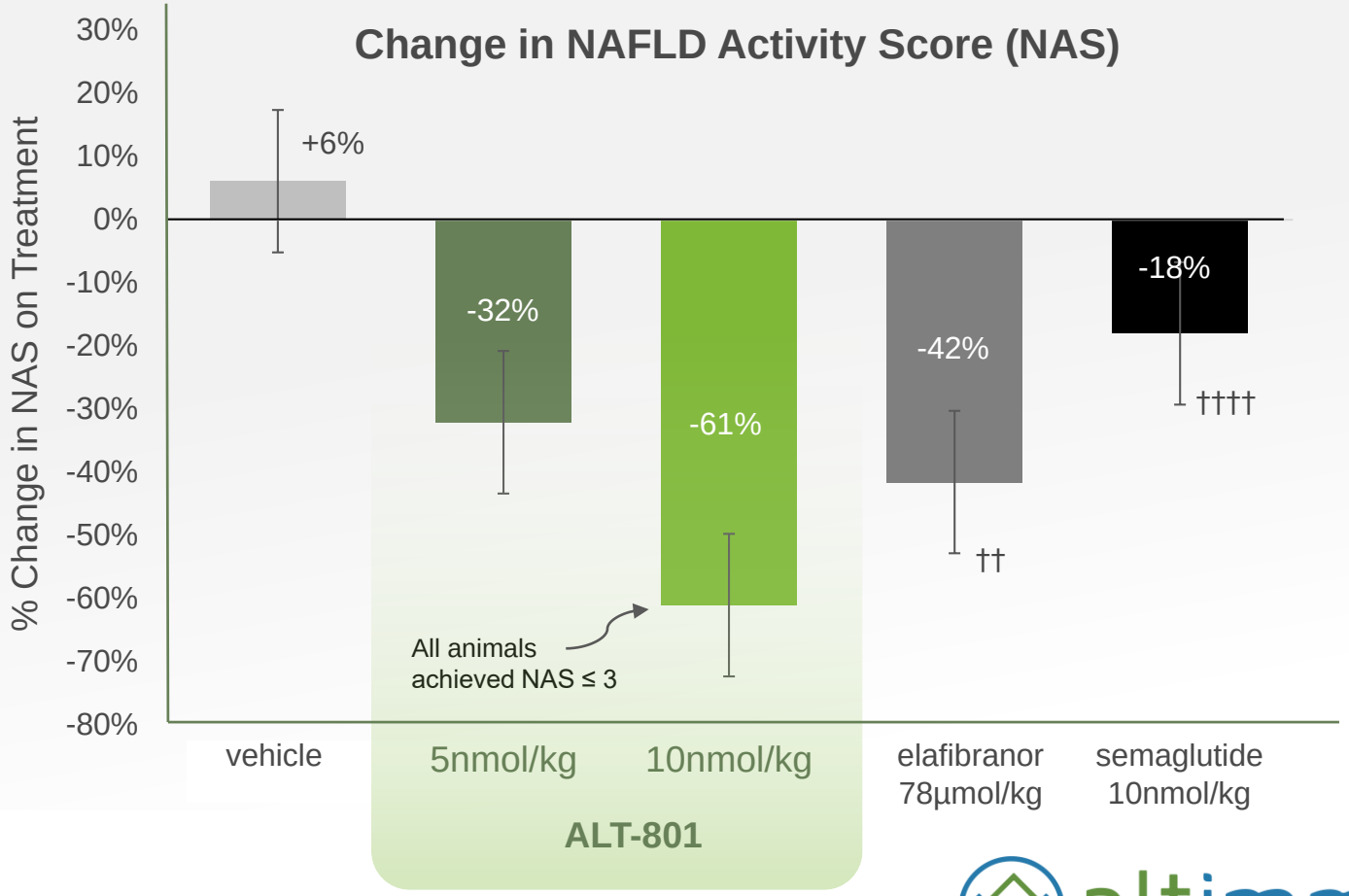
GREATER REDUCTION IN NAFLD ACTIVITY SCORE (NAS)

Gubra NASH Mouse Model After 12 Weeks of Treatment



Mean (SE), 1-way ANOVA with Dunnett's adjustment for multiplicity
†† p < .01, ††† p < .001, ††††, p < .0001 vs. ALT 10 nmol/kg (n=11-12)

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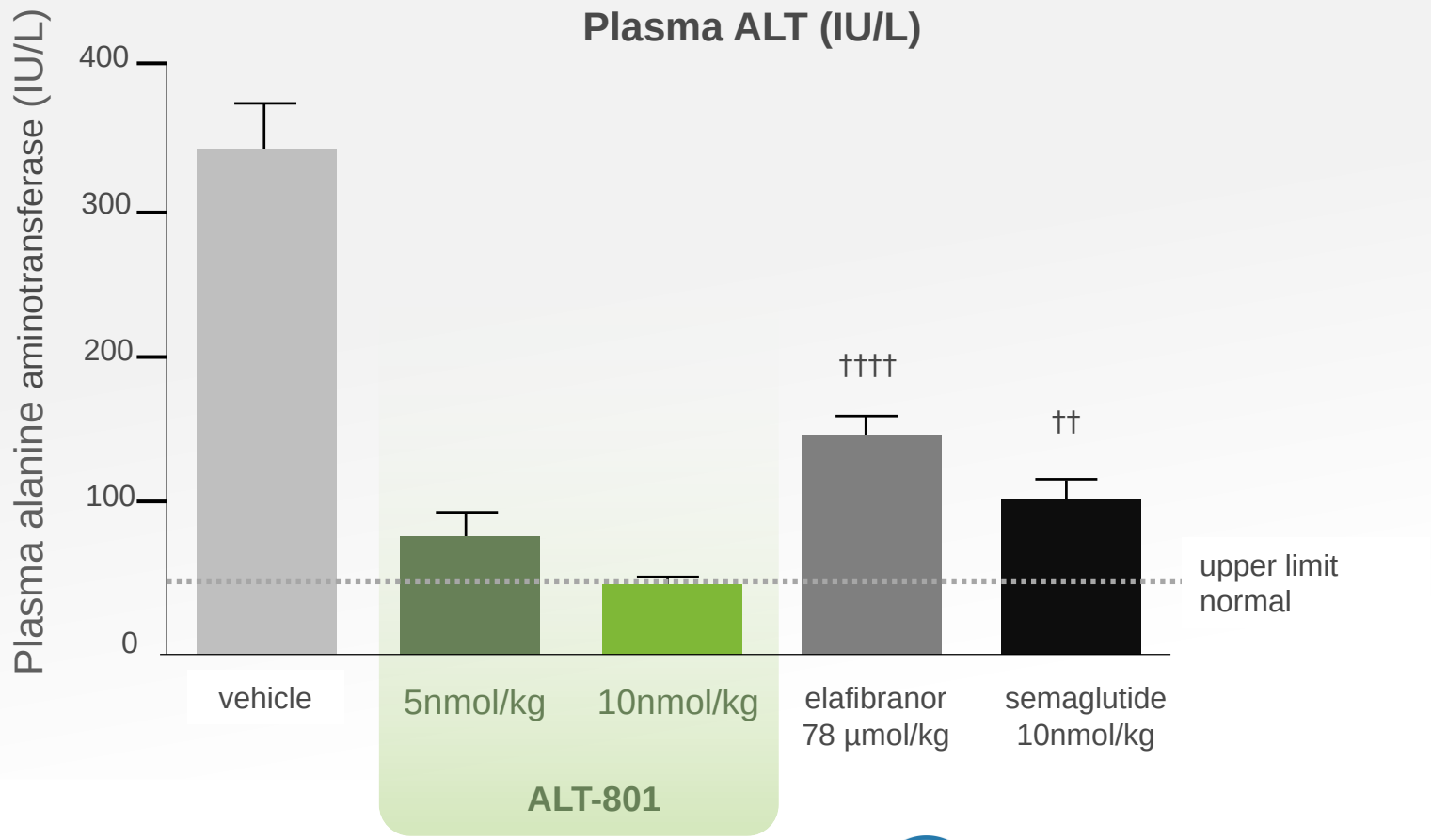
PLASMA ALT NORMALIZED

Gubra NASH Mouse Model After 12 Weeks of Treatment



Mean (SE), 1-way ANOVA with Dunnett's adjustment for multiplicity
†† p < .01, ††† p < .001, ††††, p < .0001 vs. **ALT-801** 10 nmol/kg (n=11-12)

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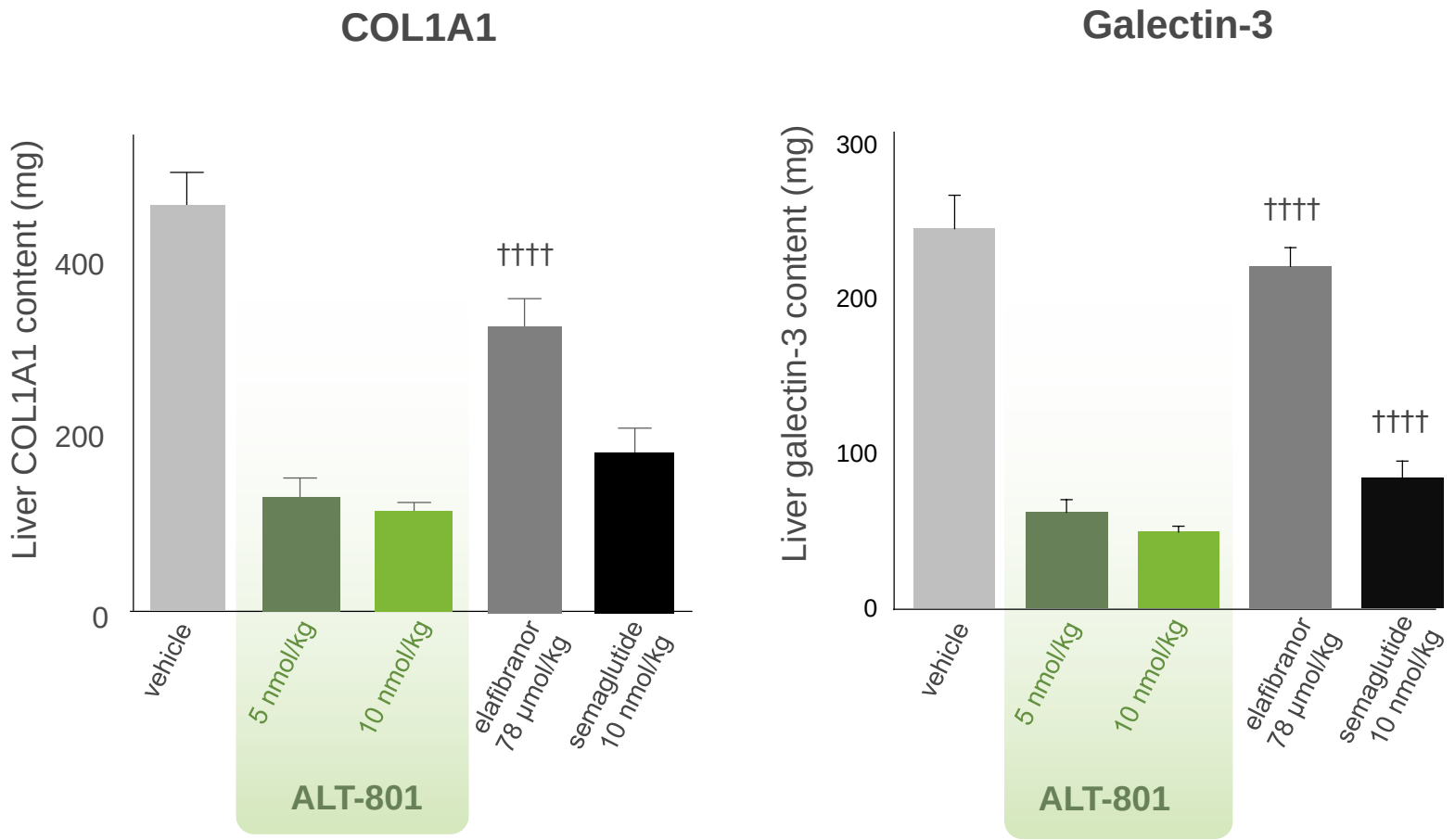
ALT-801

GREATER EFFECTS ON FIBROSIS

Gubra NASH Mouse Model After 12 Weeks of Treatment



Mean (SE), 1-way ANOVA with Dunnett's adjustment for multiplicity
†† p < .01, ††† p < .001, ††††, p < .0001 vs. ALT 10 nmol/kg (n=11-12)

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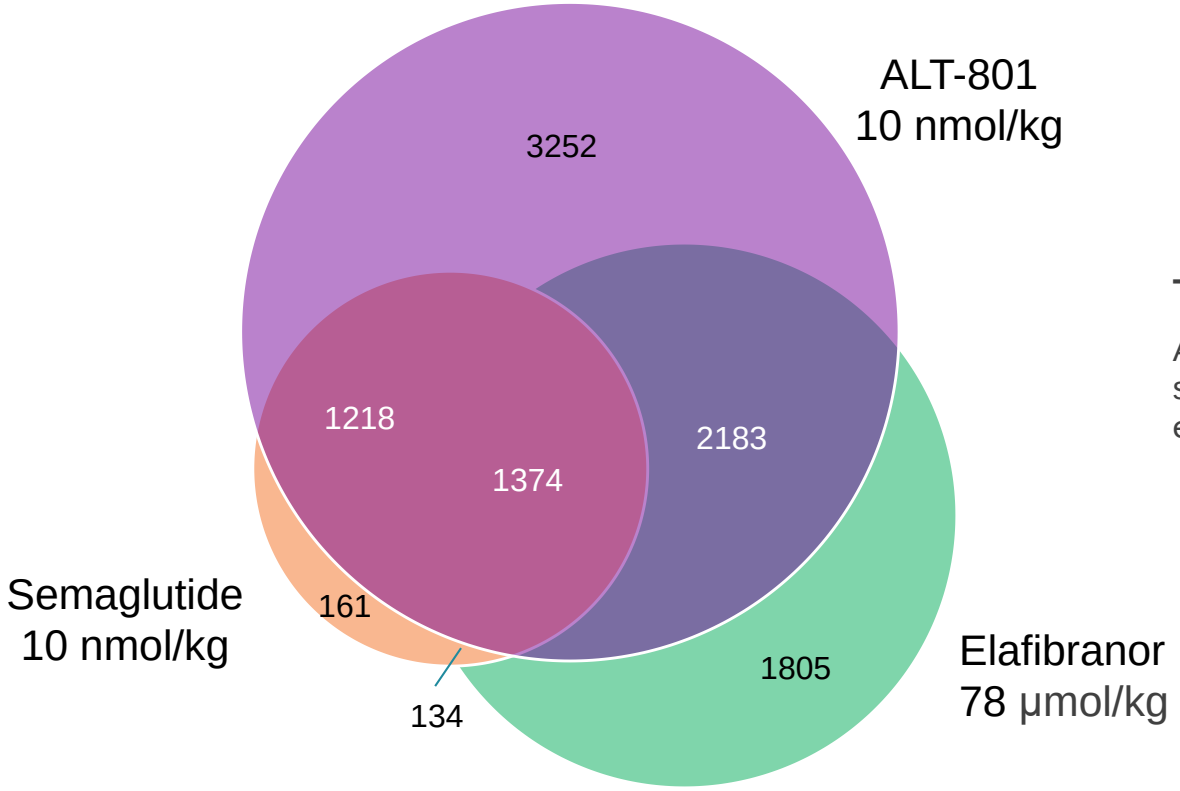
ALT-801: PLEIOTROPIC EFFECTS

DIFFERENTIALLY REGULATES MORE PATHWAYS IN NASH PATHOGENESIS



Total regulated genes

ALT-801 10nmol/kg ~ 8,000
semaglutide 10nmol/kg ~ 2,800
elafibranor 78µmol/kg ~ 5,800

Visualization of the number of genes regulated by each compound. Values inside circles indicate the number of genes differentially expressed versus the vehicle group that are compound specific or shared between treatments.

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ALT-801

SUMMARY

- ALT-801 preclinical results showed superior reductions in nearly all measured NASH parameters compared to semaglutide or elafibranor, returning many parameters to lean normal range:
  - Body and liver weight
  - NAS and ALT
  - Collagen (COL1A1 and galectin-3) content
  - Liver fat, cholesterol and triglycerides
- ALT-801 improved metabolic function and exhibited pleiotropic effects in preclinical testing across multiple pathways involved in NASH
- ALT-801 resulted in more profound suppression of genes associated with steatosis, inflammation and stellate cell fibrosis by RNA sequencing compared to elafibranor

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PROJECTED PHASE 1 CLINICAL TIMELINE

Phase 1 Summary

1. SAD in Australia: ~50 patients
2. 6-week MAD in Australia: ~60 patients
3. 12-week parallel-dose in US: ~50 patients

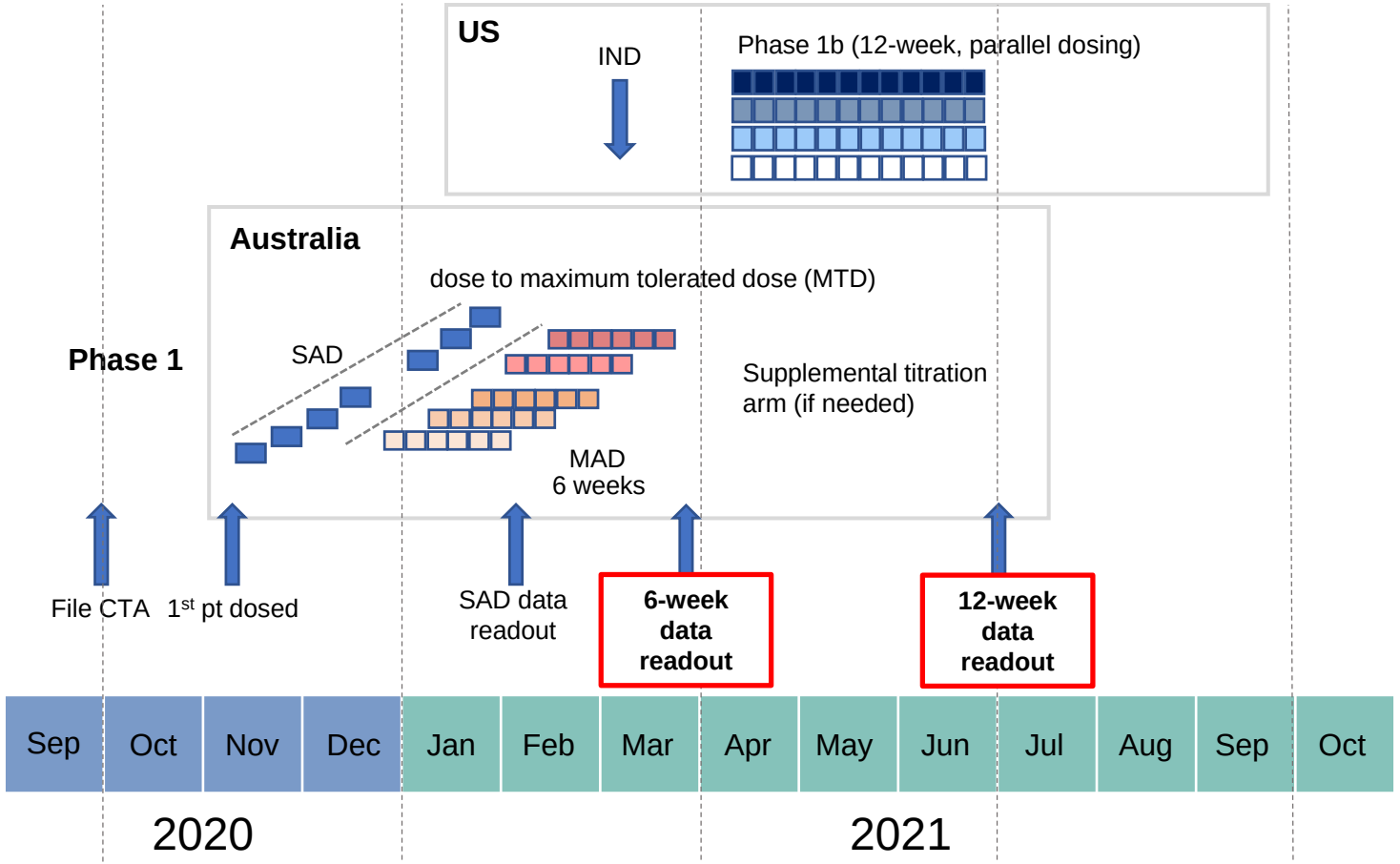
Patient population: Overweight and obese non-diabetics

Endpoints in 6-week study

- Safety, tolerability
- Pharmacokinetics (PK)
- Preliminary read out on weight loss, resting energy expenditure (REE), and liver fat
- Glucose homeostasis

Endpoints in 12-week study

- Safety, tolerability
- PK
- ***Weight loss***
- Liver Fat by MRI-PDFF; lean body mass;
- Non-invasive fibrosis markers
- REE and respiratory quotient (Rq), lipids
- Glucose homeostasis



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 and improved GI tolerability

STRONG INTELLECTUAL PROPERTY

Worldwide filings in 6 patent families; including a granted US patent with exclusivity ≥ 2035

SUPERIOR PRE-CLINICAL DATA

Superior to semaglutide and elafibranor in:

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

PATIENT FRIENDLY

Aqueous solution compatible with 31-gauge needle to maximize comfort

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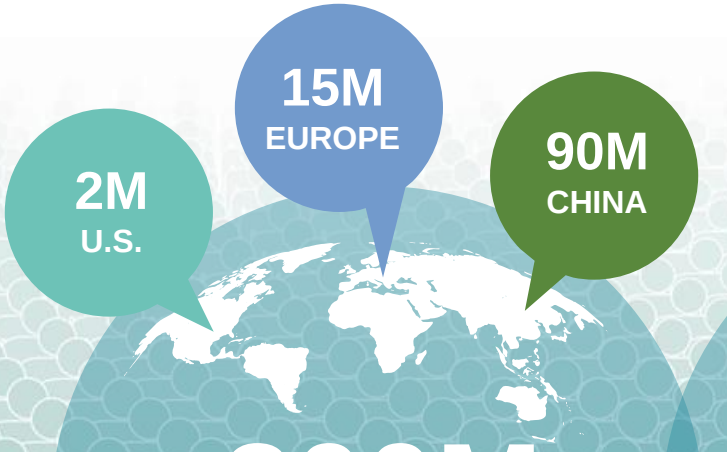
HepTcell: T CELL STIMULANT THERAPEUTIC FOR CHRONIC HEPATITIS B

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

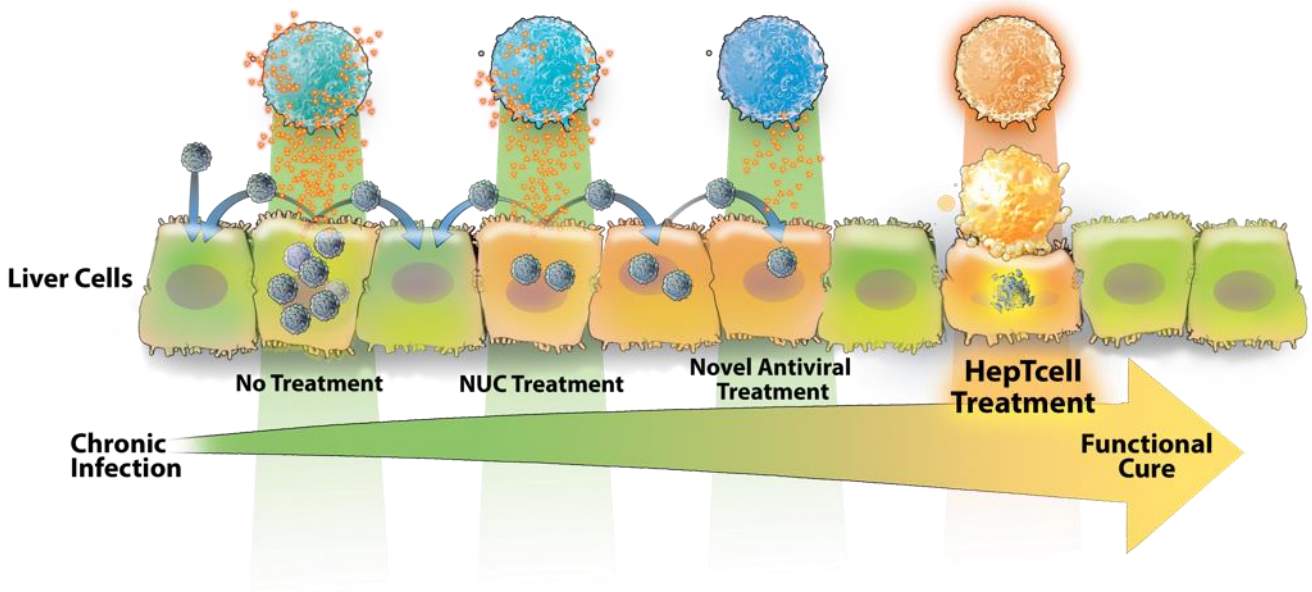
Immune activation will be required for significant impact

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

Study in subjects chronically infected with HBV

POPULATION

60 HBeAg- 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

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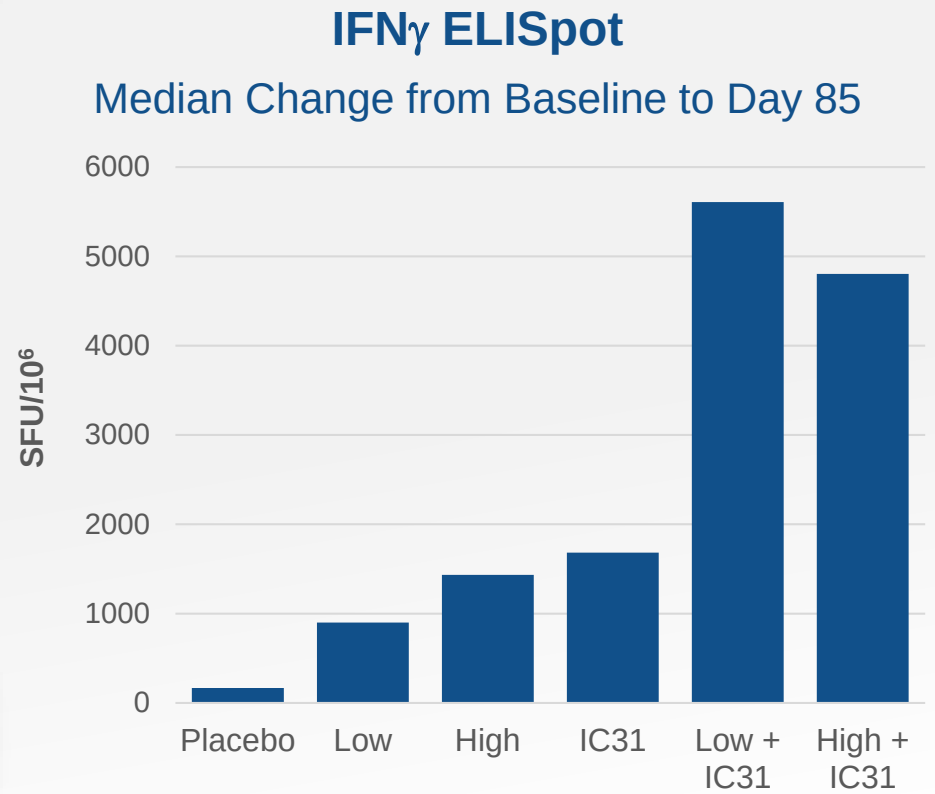
HepTcell: PHASE 1 SAFETY AND IMMUNOGENICITY STUDY

Anti-HBV T-cell Response After 3 Injections



- HepTcell breaks 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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DIFFERENTIATED

Designed to **restore immune control of infection** instead of targeting viral pathway

Targets all HBV genotypes

Complimentary to currently approved antivirals and other products in development

Phase 1 data in chronically infected population **documented HBV T cell stimulation**

HepTcell

Specific Immunotherapy for Chronic HBV

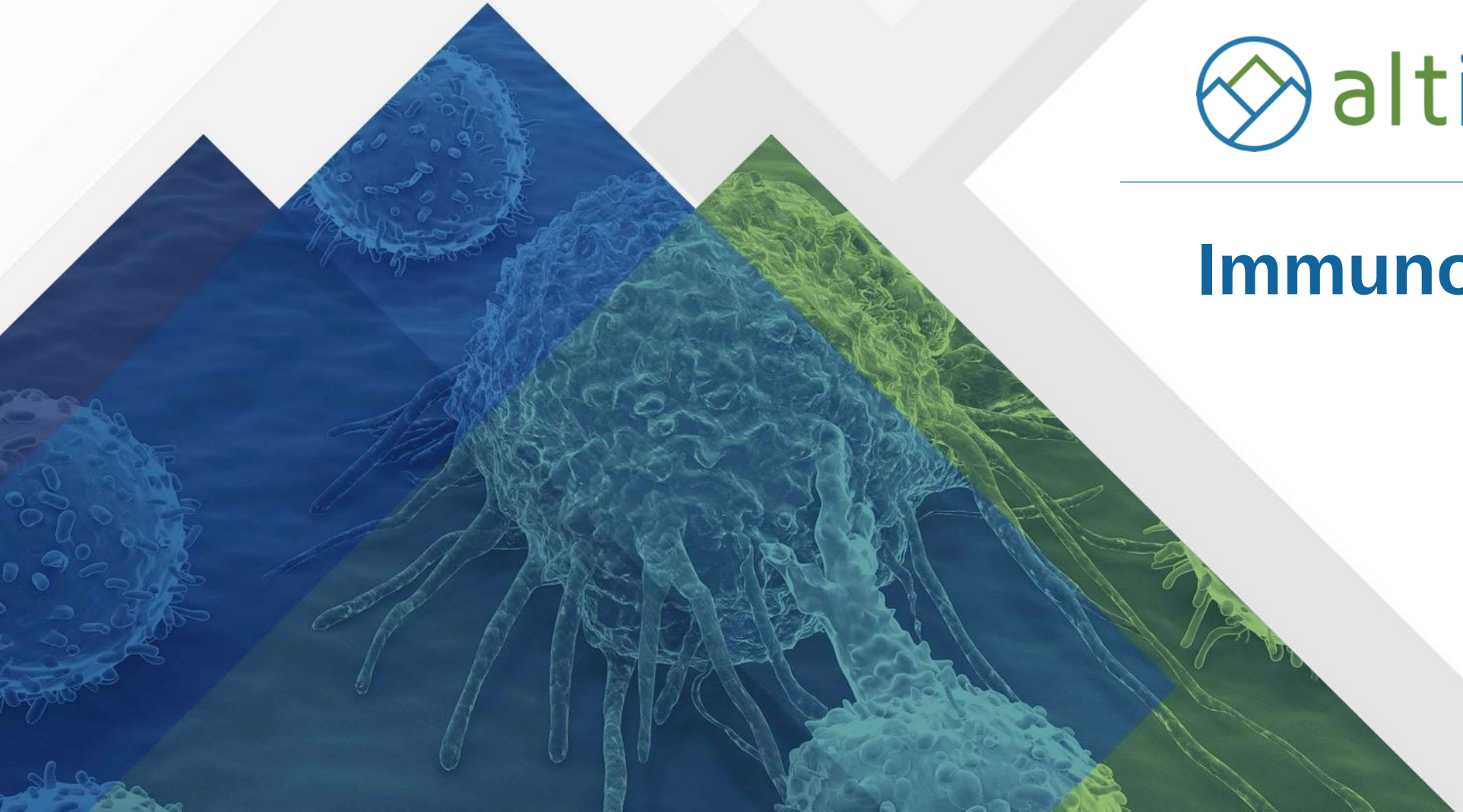
DEVELOPMENT PLAN

File IND in 1H 2020 following **successful pre-IND meeting**

Phase 2 program in **expanded chronic HBV patient population**

Exploit immune activation of HepTcell in combination with other novel HBV therapeutics

Seek commercial partner with complementary therapeutic product



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Immuno-oncology

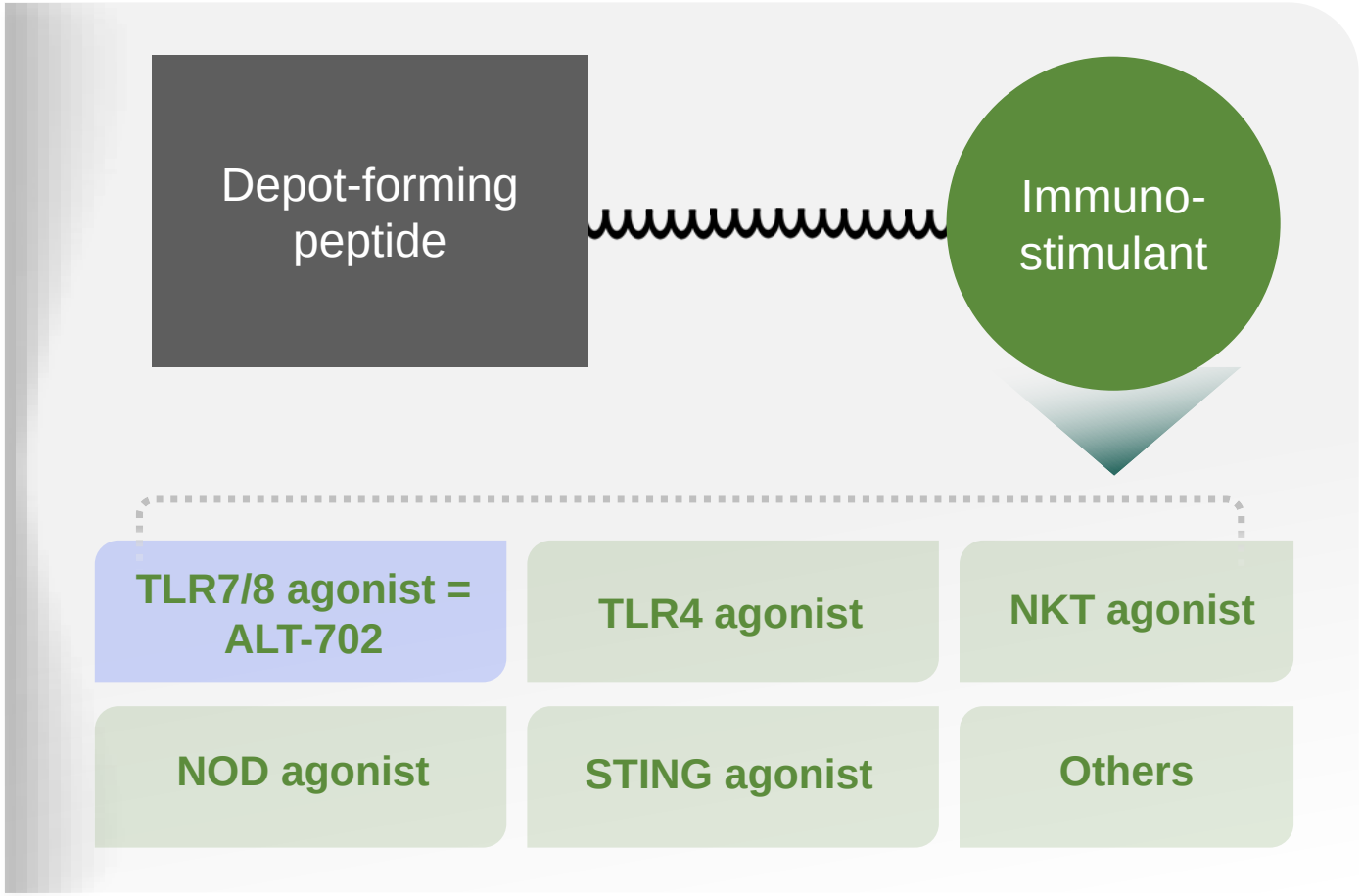
ALT-702: ANCHORED IMMUNOSTIMULANT FOR IMMUNO-ONCOLOGY

Platform technology to improve safety and efficacy of immunostimulants

Conjugated TLR7/8 agonist utilizes **depot technology** to anchor immune stimulant at tumor site for improved safety

Designed to **reverse local immunosuppression** and elicit local and systemic antitumor immune responses

Potential to synergize with cancer treatment modalities such as immune checkpoint inhibitors, oncolytic viruses and CAR-T cells



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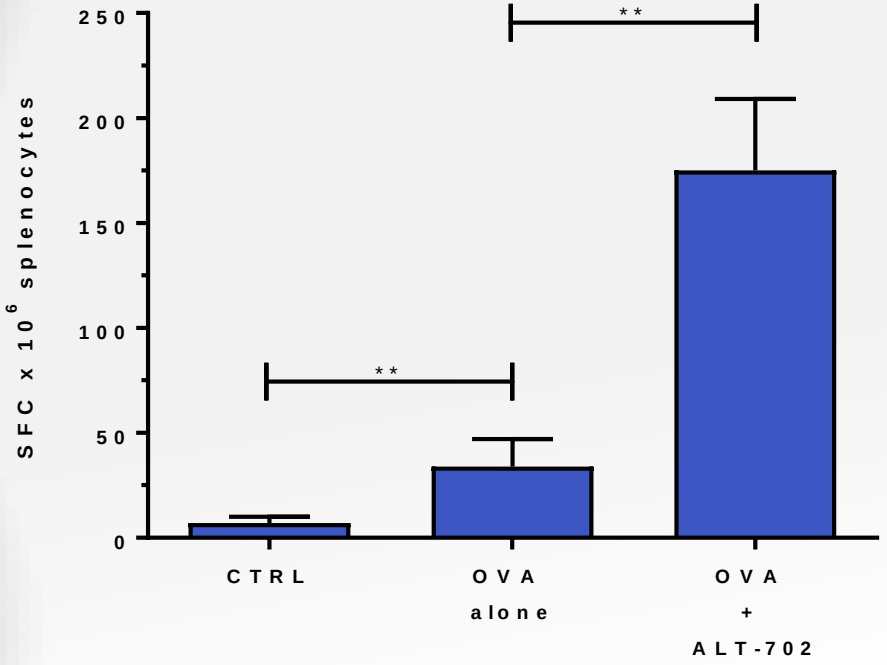
ALT-702: ANCHORED IMMUNOSTIMULANT WITHOUT SYSTEMIC TOXICITY

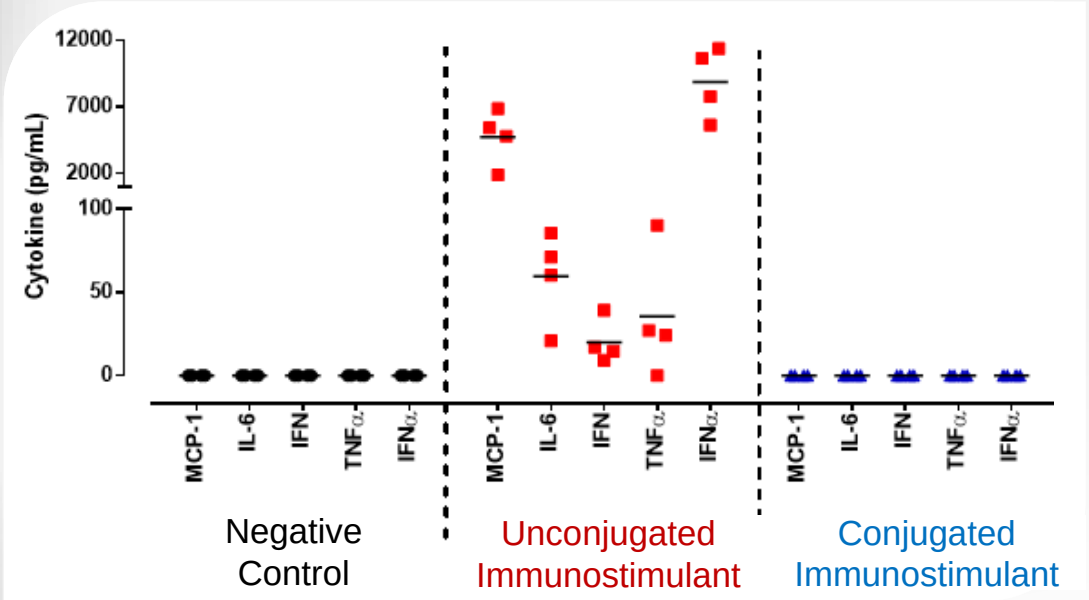
Uncouples immune-mediated efficacy from severe toxicity

In vivo Immune Stimulation



ALT-702 – Strong immunostimulatory properties

Increased safety



ALT-702 - No systemic inflammatory cytokines

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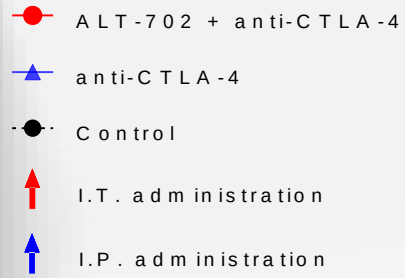
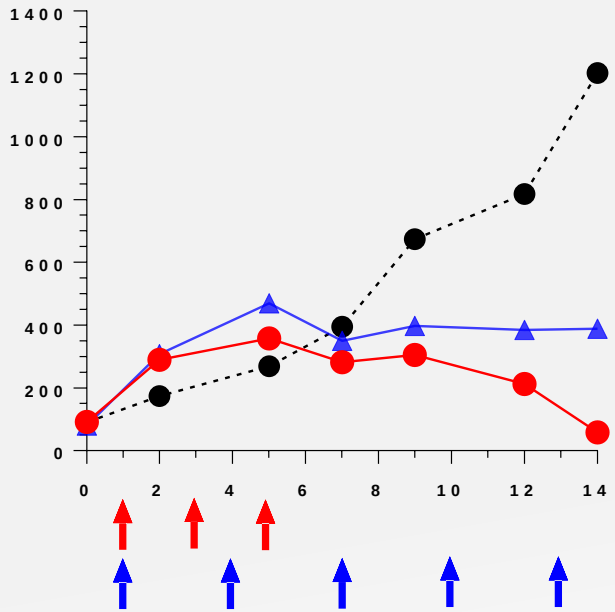
ALT 702: POTENT ANTITUMOR ACTIVITY

Tumor regression and abscopal effect in combination with immune checkpoint inhibitor

Antitumoral activity (CT26; i.t. administration)

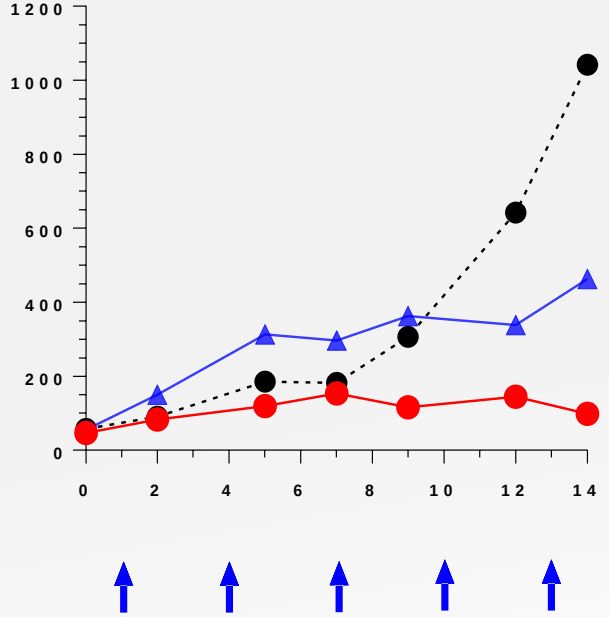


INJECTED TUMOR



ALT-702 synergize with anti-CTLA-4 to promote tumor regression

NON-INJECTED TUMOR



Evidence of abscopal effect in non-injected, distal tumors

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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 immuno-stimulants or therapeutics**

Fully synthetic product – Low CoGs

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INTRANASAL VACCINES

DIFFERENTIATED

Only single-dose vaccine
currently in development

Intranasal spray

Faster protection

Superior logistics

- No cold chain distribution
- Self administered/no injection required

NasoShield
Differentiated
Anthrax Vaccine

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: FUNDED THROUGH A DEVELOPMENT CONTRACT WITH BARDA

Phase 1b initiated, data expected in H2 2020

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[1]

- Nuthrax® initial stockpiling valued at $261M with a $1.5 billion total potential contract value

[1] https://globalbiodefense.com/2019/08/01/barda-exercises-first-option-in-transition-from-biothrax-to-av7909-anthrax-vaccine/

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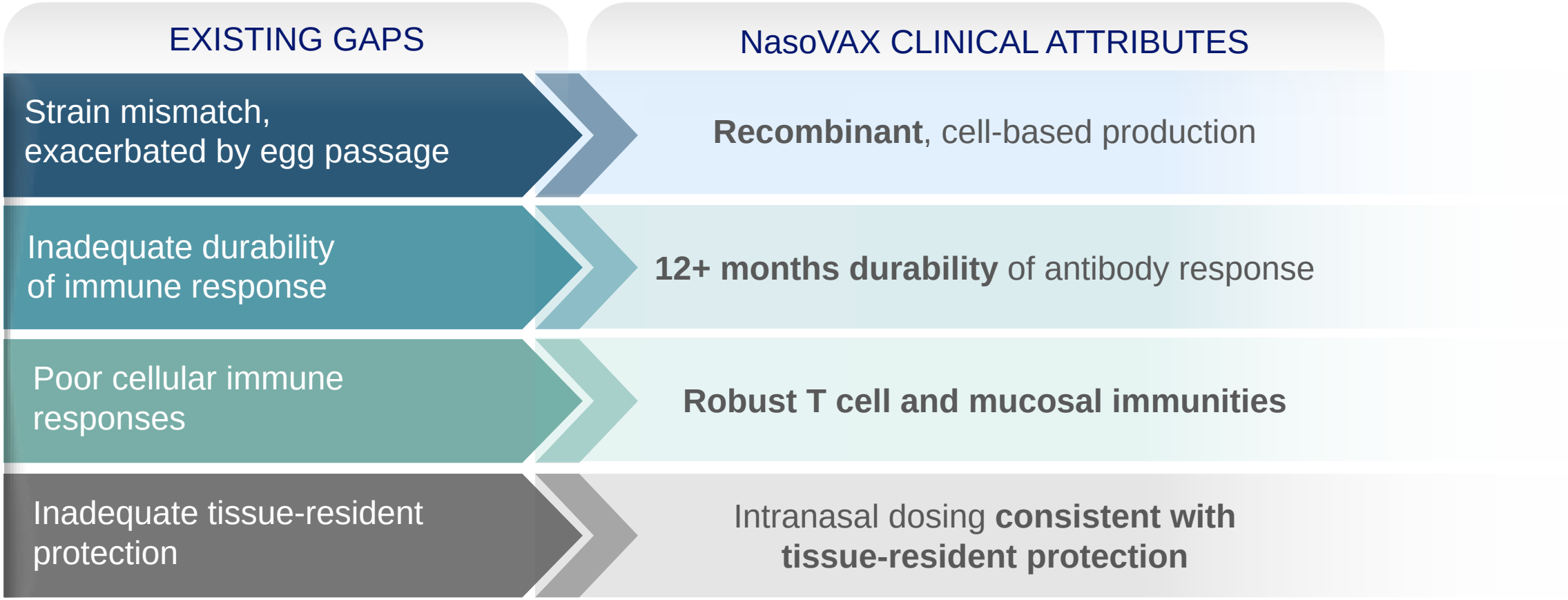
NasoVAX: INNOVATIVE INTRANASAL INFLUENZA VACCINE

NIAID Strategic Plan – Gaps in Licensed Seasonal Influenza Vaccines



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NasoVAX: PHASE 2 DATA VALIDATES MULTIPLE LEVELS OF DIFFERENTIATION

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

NasoVAX

Influenza Vaccine, Intranasal

Phase 2 Study Highlights

HAI and microneutralization **antibody similar to licensed Fluzone vaccine**

Durability of immune response **greater than 12 months** vs. 6 months for current vaccines

Robust mucosal and **cellular immunity** induced unlike Fluzone

Excellent safety profile, tolerability not different from placebo

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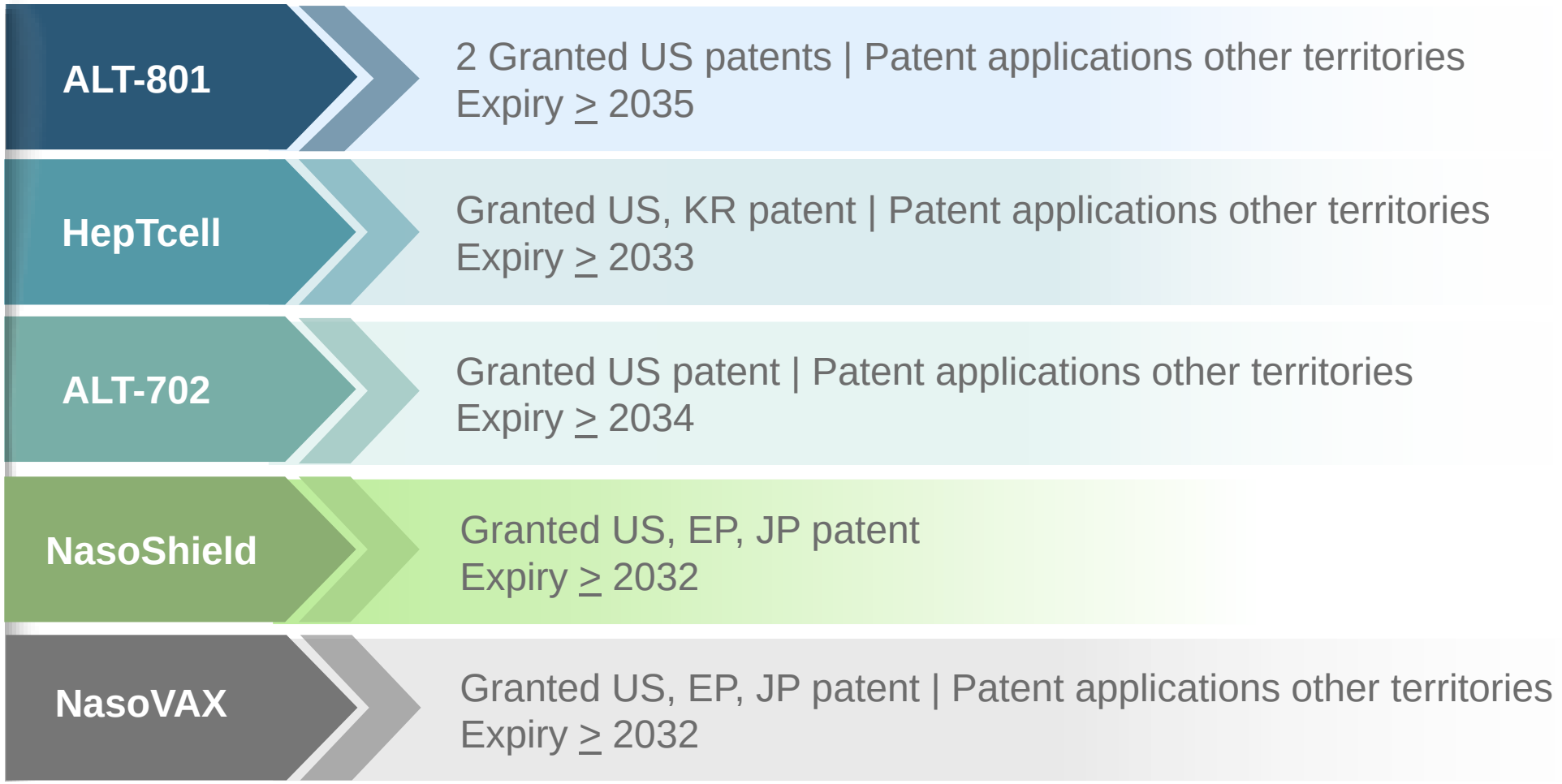
STRONG INTELLECTUAL PROPERTY PORTFOLIO

Significant patent term remaining in all families



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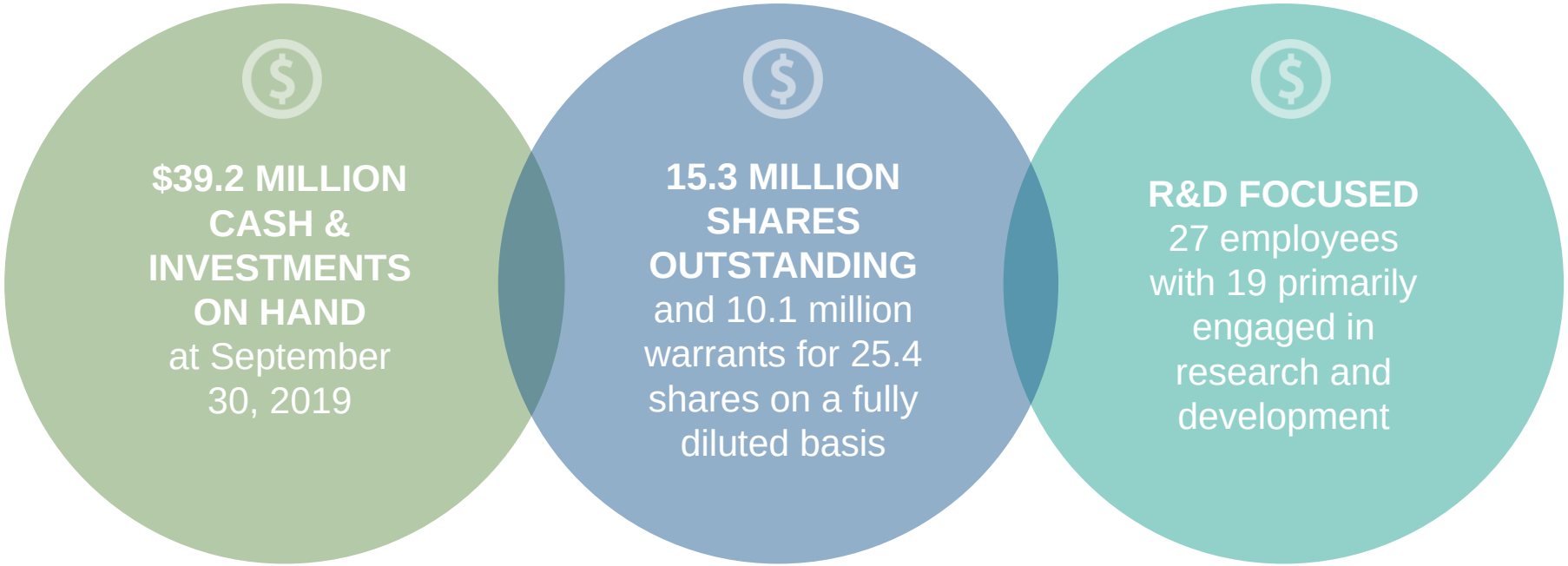
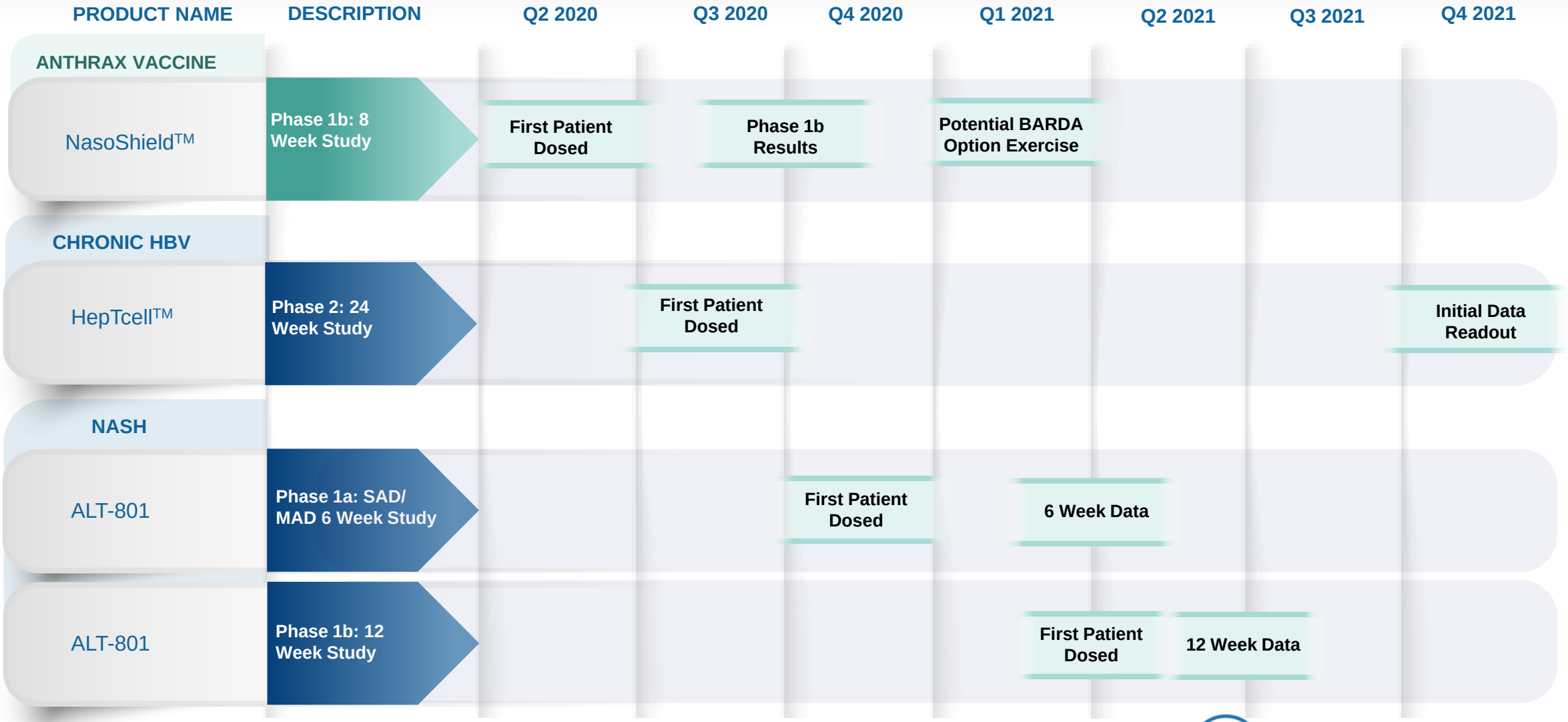
FINANCIAL HIGHLIGHTS

Altimmune is well positioned to advance multiple product candidates



MULTIPLE NEAR-TERM CLINICAL MILESTONES



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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

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CORPORATE PRESENTATION

March 2020