



Corporate Presentation

NASDAQ: ABUS

www.arbutusbio.com

May 24, 2022



Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and Canadian securities laws. All statements that are not historical facts are hereby identified as forward-looking statements for this purpose and include, among others, statements relating to: the potential market opportunity for HBV; Arbutus' ability to meet a significant unmet medical need; the sufficiency of Arbutus' cash and cash equivalents for the anticipated durations; the expected cost, timing and results of Arbutus' clinical development plans and clinical trials, including its clinical collaborations with third parties; the potential for Arbutus' product candidates to achieve their desired or anticipated outcomes; Arbutus' expectations regarding the timing and clinical development of Arbutus' product candidates, including its articulated clinical objectives; the timeline to a combination cure for HBV; Arbutus' coronavirus strategy; Arbutus' expectations regarding its technology licensed to third parties; the expected timing and payments associated with strategic and/or licensing agreements; the patent infringement lawsuit against Moderna; and other statements relating to Arbutus' future operations, future financial performance, future financial condition, prospects or other future events.

With respect to the forward-looking statements contained in this presentation, Arbutus has made numerous assumptions regarding, among other things: the timely receipt of expected payments; the effectiveness and timeliness of pre-clinical studies and clinical trials, and the usefulness of the data; the timeliness of regulatory approvals; the continued demand for Arbutus' assets; and the stability of economic and market conditions. While Arbutus considers these assumptions to be reasonable, these assumptions are inherently subject to significant business, economic, competitive, market and social uncertainties, and contingencies including uncertainties and contingencies related to the ongoing COVID-19 pandemic and patent litigation matters. Forward-looking statements herein involve known and unknown risks, uncertainties and other factors that may cause the actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements. Such factors include, among others: anticipated pre-clinical and clinical trials may be more costly or take longer to complete than anticipated, and may never be initiated or completed, or may not generate results that warrant future development of the tested drug candidate; changes in Arbutus' strategy regarding its product candidates and clinical development activities; Arbutus may not receive the necessary regulatory approvals for the clinical development of Arbutus' products; economic and market conditions may worsen; uncertainties associated with litigation generally and patent litigation specifically; market shifts may require a change in strategic focus; the parties may never realize the expected benefits of the collaborations; and the ongoing COVID-19 pandemic could significantly disrupt Arbutus' clinical development programs. A more complete discussion of the risks and uncertainties facing Arbutus appears in Arbutus' Annual Report on Form 10-K, Quarterly Report on Form 10-Q and Arbutus' periodic disclosure filings, which are available at www.sec.gov and at www.sedar.com. All forward-looking statements herein are qualified in their entirety by this cautionary statement, and Arbutus disclaims any obligation to revise or update any such forward-looking statements or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future results, events or developments, except as required by law.

Our Strategy

Leverage the proven track record of success established with our team's expertise in understanding and treating viral infections by discovering and developing a broad, differentiated pipeline of therapies targeting chronic HBV, COVID-19, and future coronavirus outbreaks.



Develop a **combination therapy that includes antivirals and immunologics** to provide a finite duration treatment for people with cHBV that results in >20% functional cure rate.



Develop **novel oral pan coronavirus antivirals targeting essential viral proteins** with the goal of reducing hospitalizations and providing pre-exposure prophylactic therapy.

Investment Highlights



Indications with significant unmet medical need & large market opportunities

Focused on developing functional cure for HBV and oral pan-coronavirus therapeutics



Team with virology expertise and proven track record

Discovered, developed & commercialized multiple drugs



Broad portfolio of internally discovered assets with distinct MOAs

RNAi therapeutic
Capsid Inhibitor
PD-L1 inhibitor
RNA destabilizer
M^{pro} inhibitor
Nsp12 polymerase inhibitor



Lead HBV compound – AB-729 RNAi therapeutic in multiple Phase 2a combination clinical trials

Data shows AB-729 is generally safe and well tolerated and has shown meaningful suppression of HBsAg expression



Strong financial position

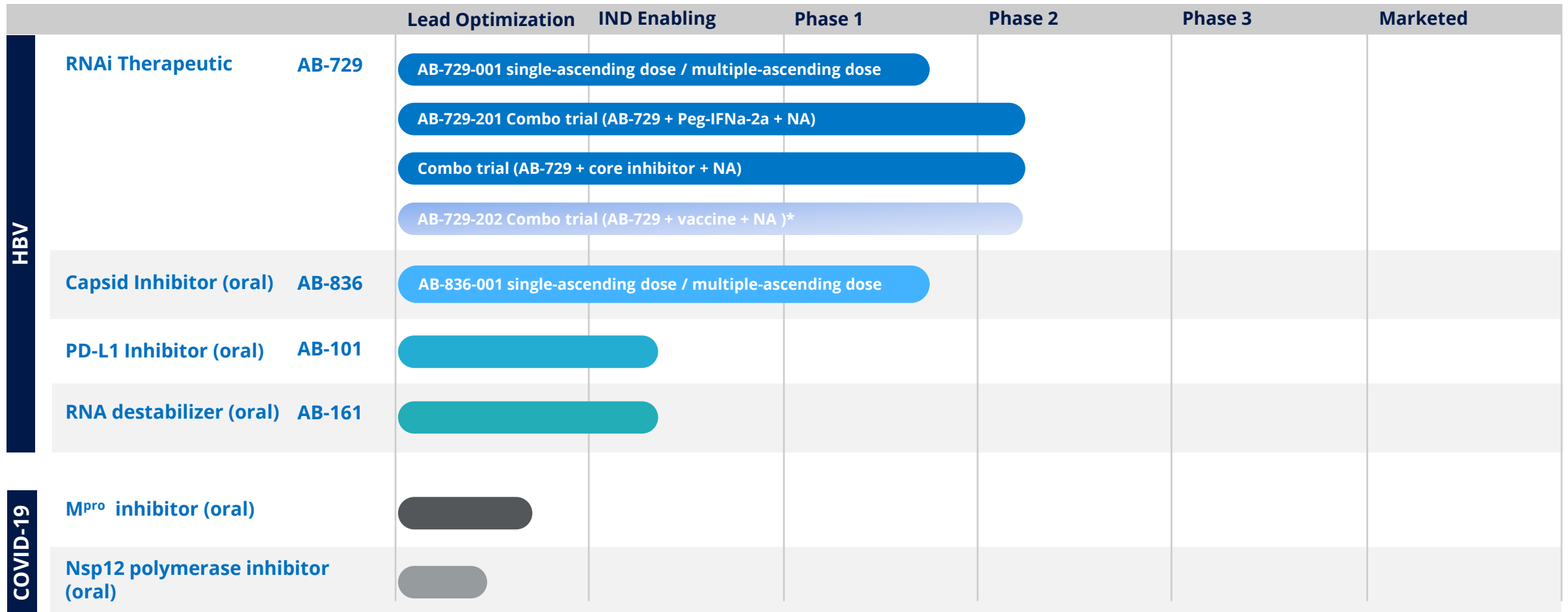
Cash runway into Q2 2024



Patented LNP technology

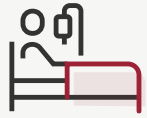
Receiving licensing royalties arising from Alynlam's Onpattro® and seeking damages for Moderna-COVID-19 vaccine sales

Broad Pipeline



*Clinical trial expected to initiate in 1H 2022

HBV Overview



Cause & Symptoms

- Life-threatening liver infection caused by hepatitis B virus (HBV)
- Transmitted through body fluids and from mother to child
- Long-term chronic infection (CHBV) leads to higher risk of cirrhosis and/or liver cancer



Diagnosis

- HBsAg detection
- Additional biomarkers necessary to determine stage of disease



Treatments

- NA therapy – lifelong daily therapy, aimed at reducing HBV DNA and risk of cirrhosis and/or HCC
- Peg-IFN α – administered weekly; poorly tolerated
- <5% of patients achieve functional cure



Rationale

- Need for finite and more efficacious HBV treatments that further improve long-term outcomes and increase functional cure rate
- Combination therapy with different MOAs will be required to reduce HBsAg, suppress HBV DNA, and boost immune system

Sources for all data on slide:

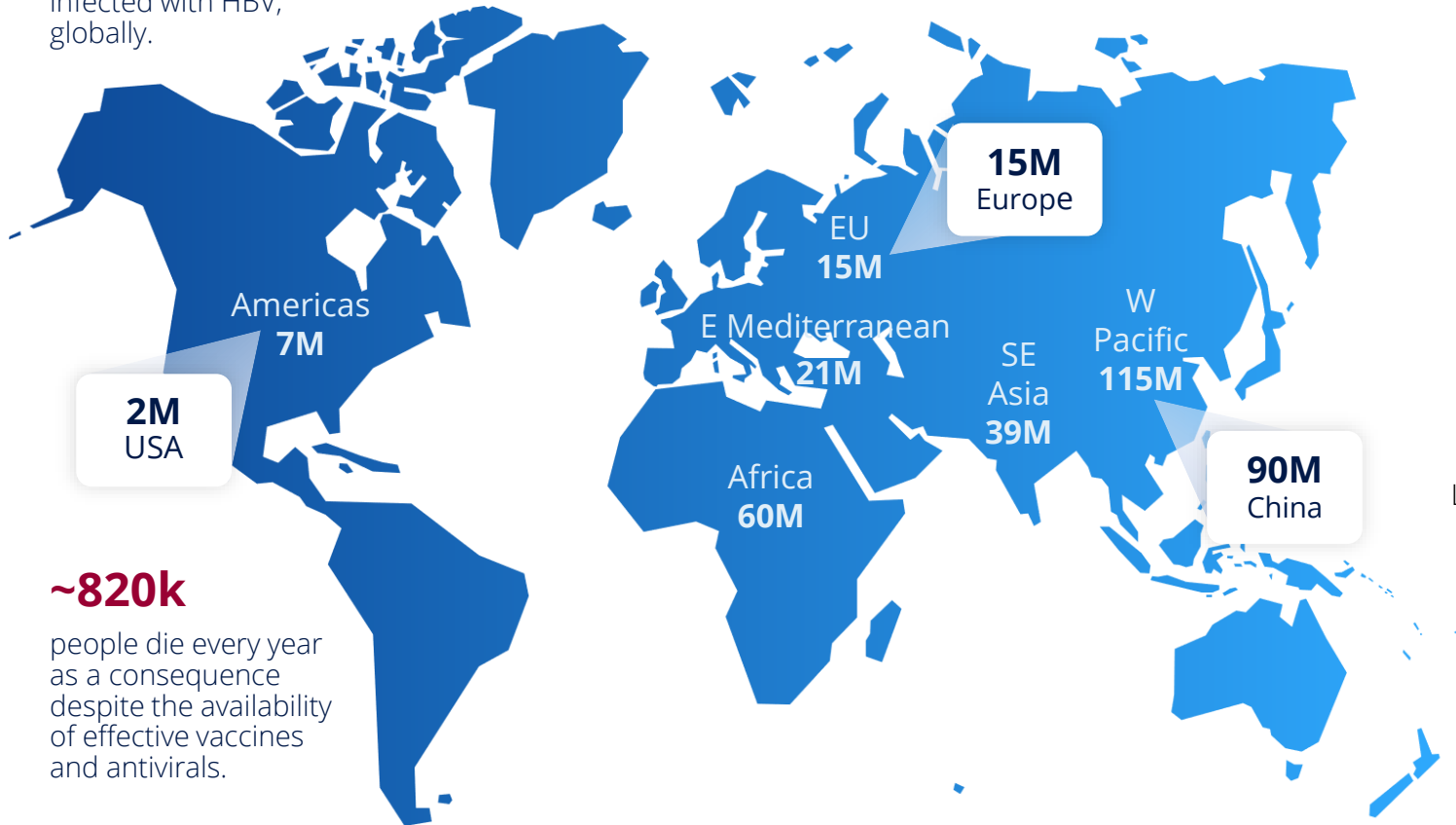
1 Hepatitis B Fact Sheet, WHO <https://www.who.int/news-room/fact-sheets/detail/hepatitis-b>; Hep B Foundation link <https://www.hepb.org/what-is-hepatitis-b/what-is-hepb/facts-and-figures/>; Kowdley et al. Hepatology (2012) Prevalence of Chronic Hepatitis B Among Foreign-Born Persons Living in the US by Country of Origin

2 Pegasys, PEG-Intron, Baraclude and Viread Package Inserts

HBV Presents a Significant Unmet Medical Need

>290M

people are chronically infected with HBV, globally.



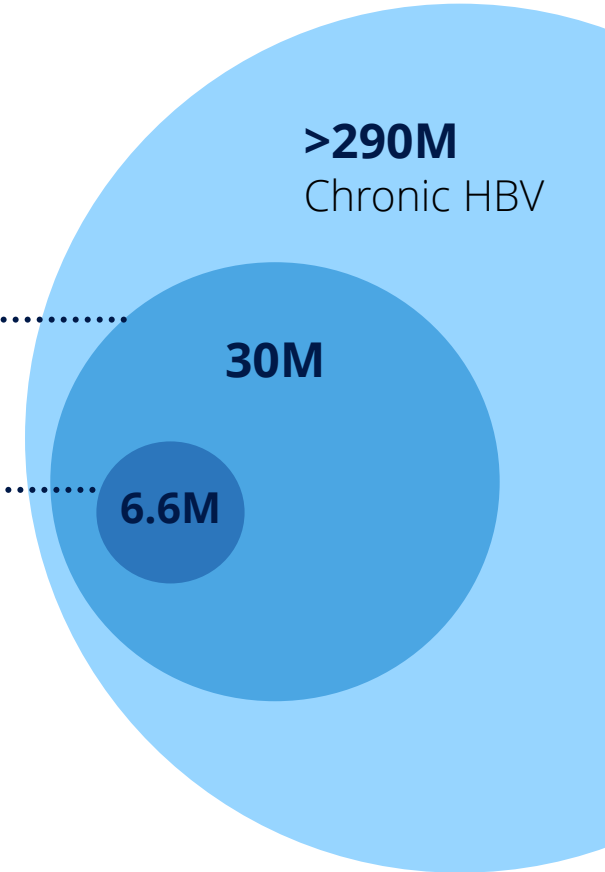
~820k

people die every year as a consequence despite the availability of effective vaccines and antivirals.

10.5%
Diagnosed

2.3%
Treated

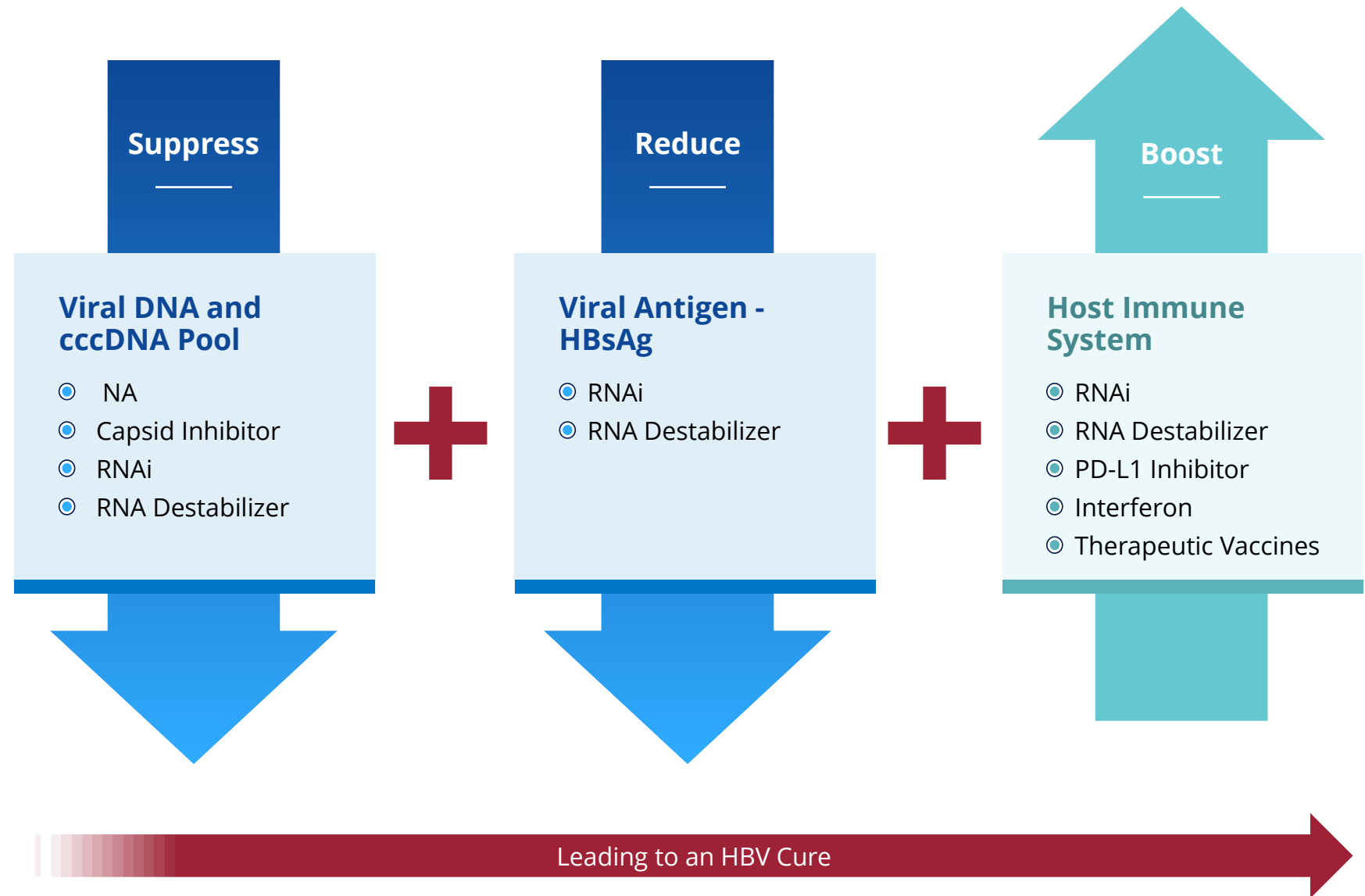
Low due to sub-optimal SOC cure rate and asymptomatic nature of disease.



3-Pronged Approach to Therapeutic Success

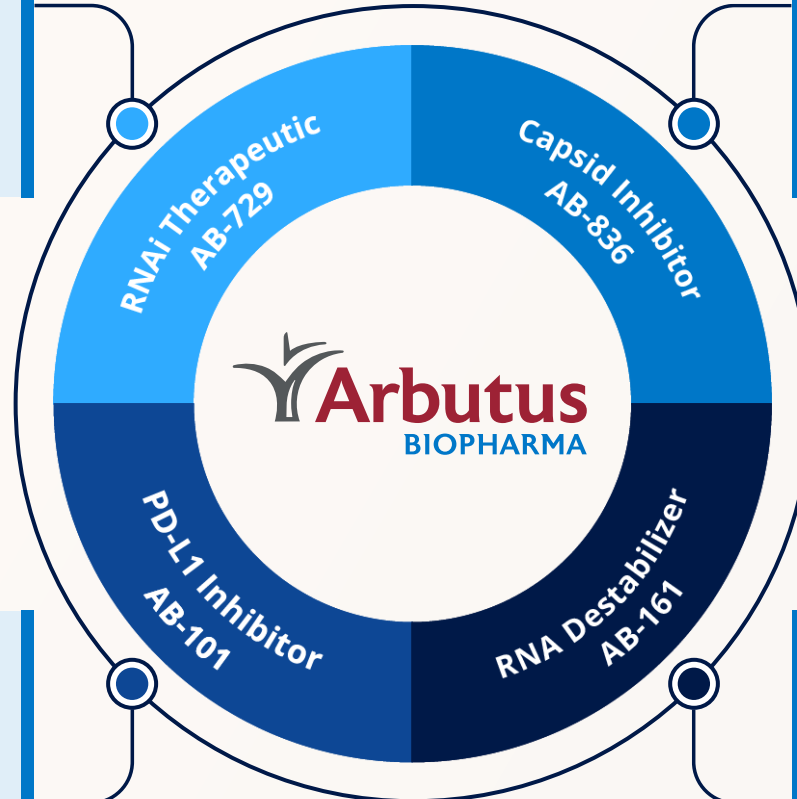
- ➔ **Suppress** HBV DNA
- ➔ **Reduce** viral antigens
- ➕ **Boost** host immune response

Therapeutic success will **require a combination of agents** with complementary MOAs.



Key Attributes of Each MOA to Combine to **Develop a Cure for HBV**

- Potent HBsAg reductions
- Less frequent dosing vs. other RNAi agents
- Re-awakening of immune response
- Potential for shorter course therapy vs. SOC



- Once-daily oral administration
- Demonstrates robust anti-viral activity
- Active against NA-resistant variants
- Enhanced potency vs. previous generation compounds
- Potential for co-formulation

- Oral administration w/ limited competition in HBV
- Liver targeted
- Potential to reawaken HBV-tolerized host immune system
- Sub-nM potency in preclinical studies

- Oral HBsAg suppressive compound
- Opportunity to replace or enhance RNAi HBsAg reductions
- Potential for co-formulation
- Potential first-in-class therapy

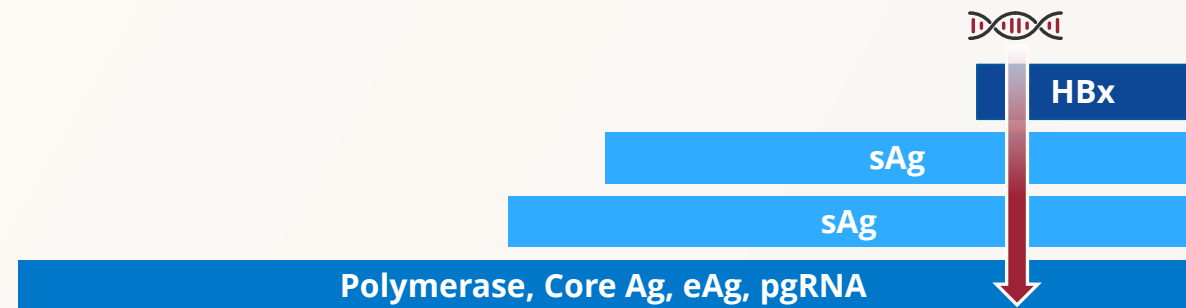
AB-729

RNAi Therapeutic

**Proprietary GalNAc-conjugate
delivery technology** provides
liver targeting and enables
subcutaneous dosing



- Single trigger RNAi agent targeting all HBV transcripts
- Inhibits HBV replication and lowers all HBV antigens
- Pan-genotypic activity across HBV genotypes
- Demonstrated complementarity with capsid inhibitors
- Actively targets the liver
- Active against cccDNA derived and integrated HBsAg transcripts
- Clean profile in long term preclinical safety studies



AB-729-001 Phase 1a/1b Clinical Trial

Part 1 & 2:

Single-ascending dose

Robust HBsAg and HBV DNA declines in HBV DNA+ patients with AB-729 monotherapy (90mg single-dose)

Part 3: Multiple Ascending Dose in cHBV Patients (n=7) - Ongoing

E: 60mg Q4W
HBV DNA-

F: 60mg Q8W
HBV DNA-

G: 90mg Q8W + TDF
HBV DNA+

I: 90mg Q8W
HBV DNA-

J: 90mg Q12W
HBV DNA-

K: 90mg Q8W HBV DNA-,
HBeAg+ only

Baseline Measure#	HBV DNA-				HBV DNA+
	Cohort E* (N=7)	Cohort F (N=7)	Cohort I (N=6)^	Cohort J (N=7)	Cohort G (N=7)
Age in years, mean (range)	45.1 (33-63)	44.0 (31-59)	45.7 (38-54)	44.3 (35-61)	43.9 (34-50)
Male gender, n (%)	4 (57%)	4 (57%)	4 (67%)	5 (71%)	3 (43%)
BMI, mean (SD)	27.7 (5.0)	23.7 (2.2)	25.5 (3.1)	28.7 (4.8)	23.8 (4.0)
Race, n (%)					
Asian	1 (14%)	5 (71%)	5 (83%)	4 (57%)	6 (86%) ⁴
Black	0	1 (14%)	0	0	0
White	6 (86%)	1 (14%)	1 (17%)	3 (43%)	1 (14%)
ALT (U/L), mean (SD)	22.4 (10.5)	23.4 (15.2)	25.0 (10.2)	20.1 (7.2)	32.7 (15.8)
HBV eAg negative, n (%)	7 (100%)	6 (71%) ⁻	5 (83%)	4 (57%)	7 (100%)
HBsAg (IU/mL), mean (range)	5,372 (584-11,761)	5,354 (667-18,605)	4,691 (338-19,017)	6,911 (309-25,345)	1,818 (277-4,723)

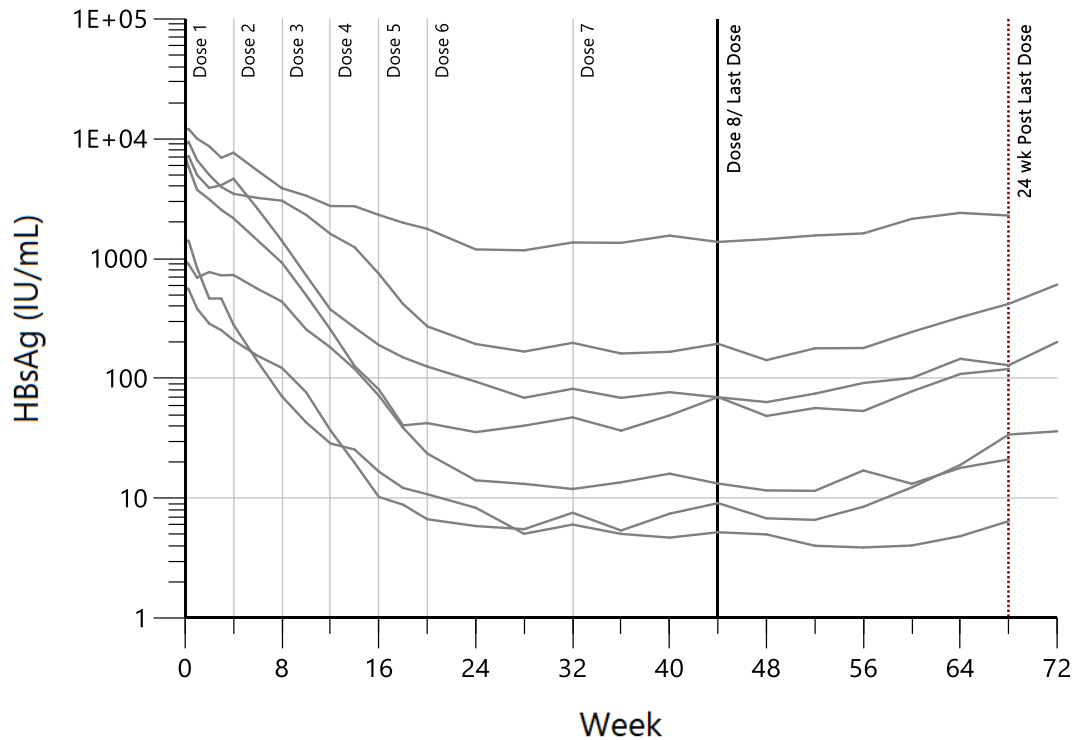
#Genotype not determined; Patients switched to AB-729 60 mg Q12W for the extension phase; ^N = 6 due to one patient meeting exclusion criteria on Day 1 and a replacement patient receiving an incorrect dose on Day 1; both entered follow up and were excluded from the analysis; ⁻One patient counted as HBeAg negative was identified as "HBeAg borderline" (baseline HBeAg = 0.18 IU/mL, LLOQ = 0.11 IU/mL)

HBeAg: HBV E antigen | **TDF:** tenofovir disoproxil fumarate

Post AB-729 Treatment: HBsAg Suppression at Levels <100 IU/mL Maintained up to 28 Weeks

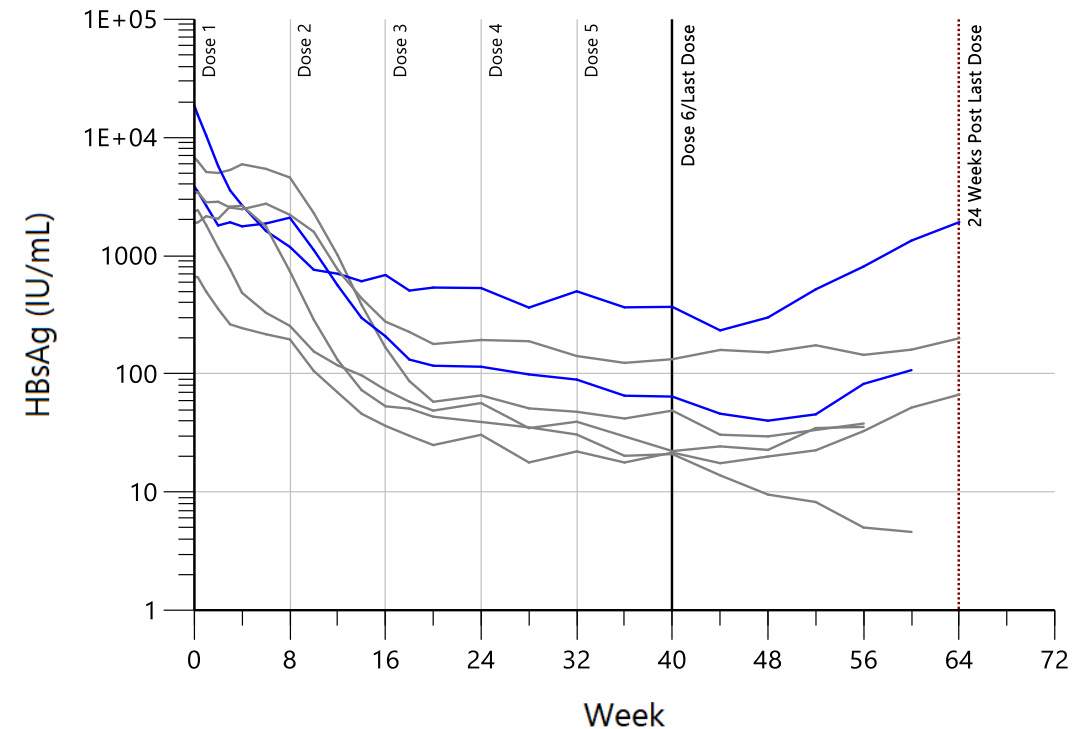
Cohort E

AB-729 60mg Q4W[†]
HBV DNA- patients



Cohort F

AB-729 60mg Q8W
HBV DNA- patients



— Individual HBeAg-
— Individual HBeAg+

[†]patients switched to AB-729 60mg Q12W after Week 20 dose
Data presented at AASLD 2021

AB-729 dosed at 90mg Q8W or Q12W Reduces HBsAg in DNA- or DNA+ Patients

Cohort I

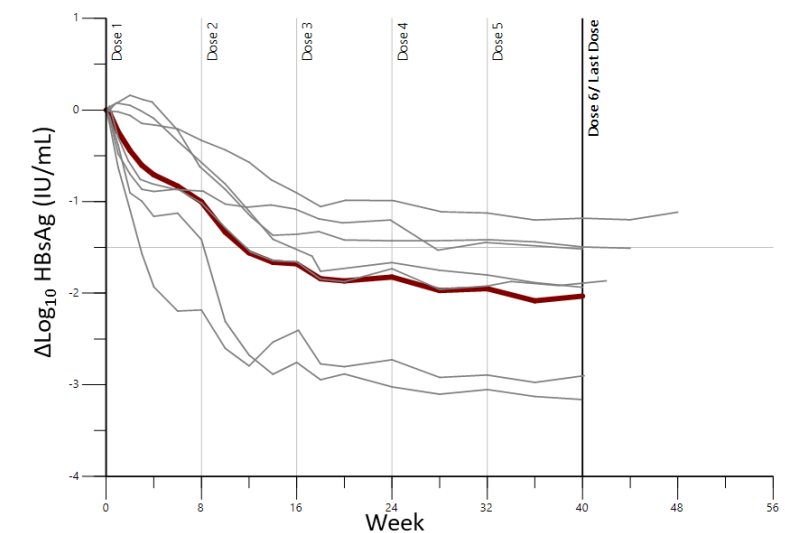
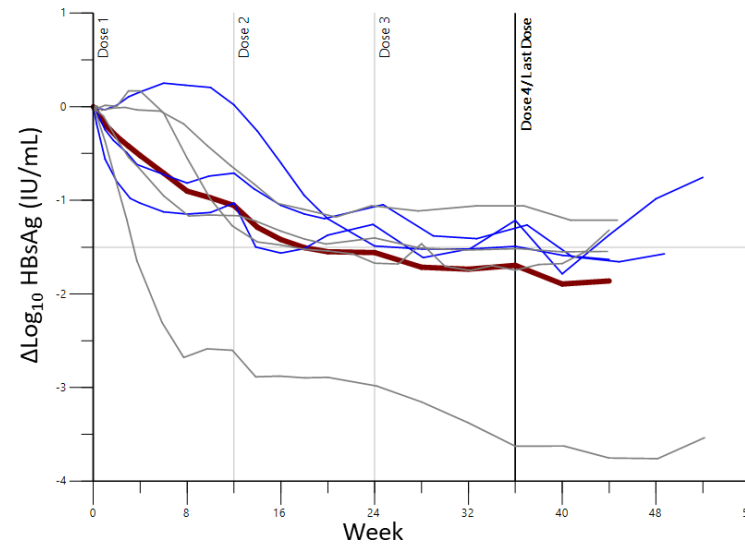
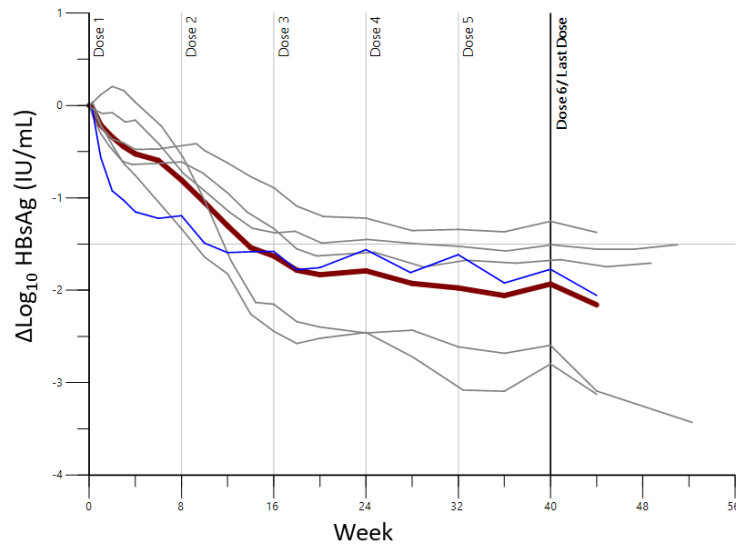
90mg Q8W DNA- (n=6)
6/6 < 100 IU/mL*

Cohort J

90mg Q12W DNA- (n=7)
4/7 < 100 IU/mL*

Cohort G

90mg Q8W DNA+ (n=7)
5/7 < 100 IU/mL*



*at time of last visit

Data presented at
AASLD 2021

Key Findings:

- The magnitude of HBsAg suppression (1.8-2.0 log reduction at wk 40) was similar across both dosing intervals
- 15 out of 20 patients achieved HBsAg <100 IU/mL
- HBsAg reduction is sustained over time

— Mean
— Individual HBeAg-
— Individual HBeAg+

AB-729 Dose and
Dosing Intervals
Mean (SE) Baseline
HBsAg Response
Similar

	HBV DNA-				HBV DNA+
Visit	Cohort E 60mg Q4W [†] (n=7)	Cohort F 60mg Q8W (n=7)	Cohort I 90mg Q8W (n=6)	Cohort J 90mg Q12W (n=7)	Cohort G 90mg Q8W (n=7)
Baseline	3.51 (0.20)	3.53 (0.17)	3.36 (0.23)	3.37 (0.28)	3.14 (0.14)
Week 12	-1.10 (0.15)	-1.02 (0.11)	-1.30 (0.19)	-1.06 (0.31)	-1.56 (0.32)
Week 24	-1.84 (0.16)	-1.57 (0.09)	-1.79 (0.22)	-1.56 (0.25)	-1.82 [#] (0.29)
Week 40	-1.84 (0.19)	-1.78 (0.10)	-1.93 (0.25)	-1.89 [^] (0.35)	-2.03 ⁺ (0.33)
Week 44	-1.81 (0.17)	-1.88 (0.13)	-2.16 (0.31)	-1.86 [^] (0.38)	---
Week 48	-1.89 (0.18)	-1.90 (0.14)	---	---	---
	Off Treatment (# weeks post last dose)				
Week 16	-1.74 (0.20)	-1.76 (0.19)	---	---	---
Week 20	-1.61 (0.20)	-1.55 [*] (0.28)	---	---	---
Week 24	-1.54 (0.19)	---	---	---	---

Note: Mean (SE) values presented only if n>3; there are no statistically significant differences between cohorts (data not shown); *n=5; ^n=6, one patient in Cohort J chose not to extend treatment; #6 of 7 patients had HBV DNA <LLOQ by Week 8, the 7th patient became <LLOQ at Week 16; †n=6

Data Presented at AASLD 2021

AB-729-001 Safety Summary

- AB-729 generally safe and well-tolerated after single and repeat doses
- No treatment-related SAEs or discontinuations due to AEs
- No treatment-related Grade 3 or 4 AEs*
- No treatment-related Grade 3 or 4 laboratory abnormalities*
 - Grade 1 and Grade 2 ALT elevations have improved or stabilized with continued treatment
- Injection site TEAEs were mostly mild (erythema, pain, bruising, pruritis)
- No clinically meaningful changes in ECGs or vital signs

*1 patient (Cohort A) with rapid decline in HBsAg of ~ 2.0 log₁₀ IU/mL had an unrelated Gr 2 AE of food poisoning resulting in unrelated transient Grade 3 AEs of ALT/AST elevation (without bilirubin changes)

AB-729-001 Clinical Trial **Key Takeaways**

AB-729 dosed 60mg Q4W and Q8W and 90mg Q8W and Q12W resulted in **robust and comparable HBsAg declines**

- AB-729 monotherapy resulted in robust HBsAg and HBV DNA declines in HBV DNA+ patients

Long-term dosing with AB-729 resulted in **75% of patients* reaching <100 IU/mL of HBsAg, a clinically relevant threshold which could inform when to stop all therapies**

- HBsAg suppression at levels of <100 IU/mL maintained up to 28 weeks off AB-729 treatment

Preliminary data suggest that long-term suppression of HBsAg with AB-729 results in **increased HBV-specific immune response***

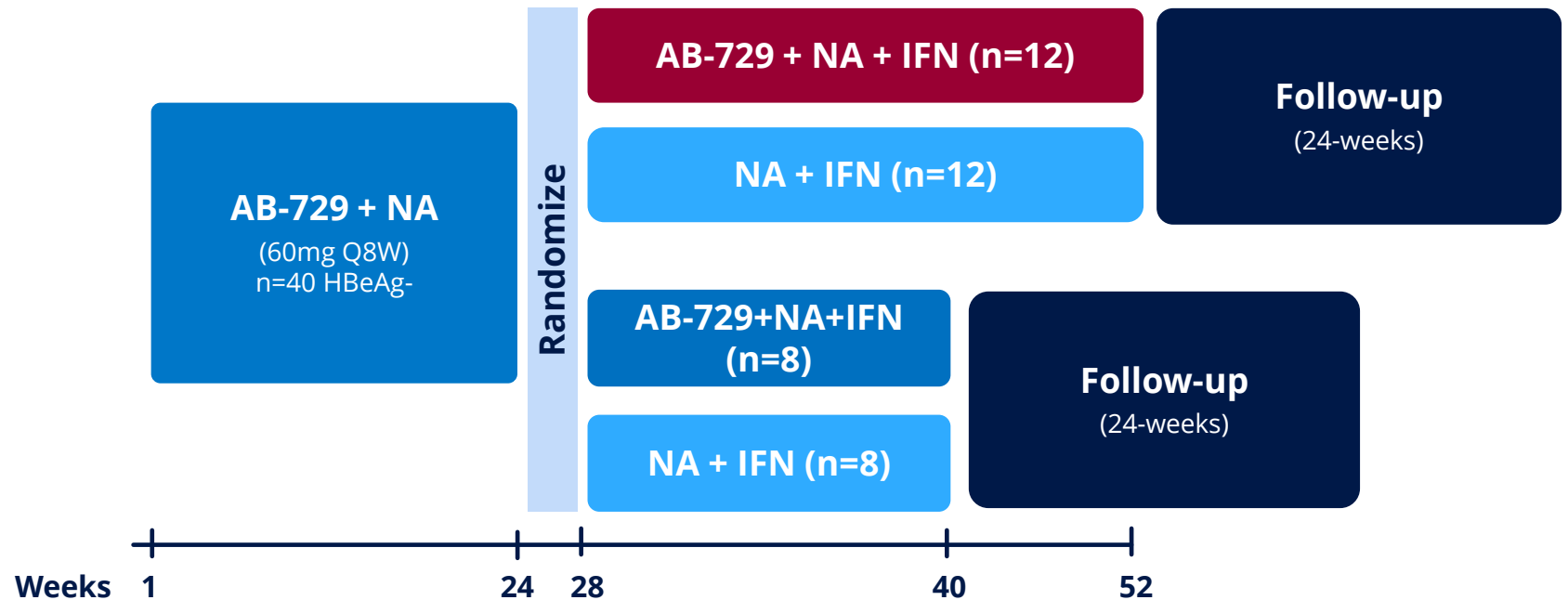
AB-729 was generally safe and well-tolerated through 40-48 weeks of dosing

AB-729-201:

Phase 2a POC Clinical Trial

AB-729 in combination with
**ongoing NA therapy and
short courses of Peg-IFN α -
2a in cHBV patients**

Initial data expected 2H 2022



Multi-center, open-label Phase 2a

Primary objective: evaluate safety and tolerability of AB-729 in combination with Peg-IFN α -2a in patients with NA-suppressed cHBV

After 24-weeks follow-up, patients may elect to stop NA therapy. Those patients that stop NA therapy will be followed for an additional 48 weeks.

POC: Proof of Concept

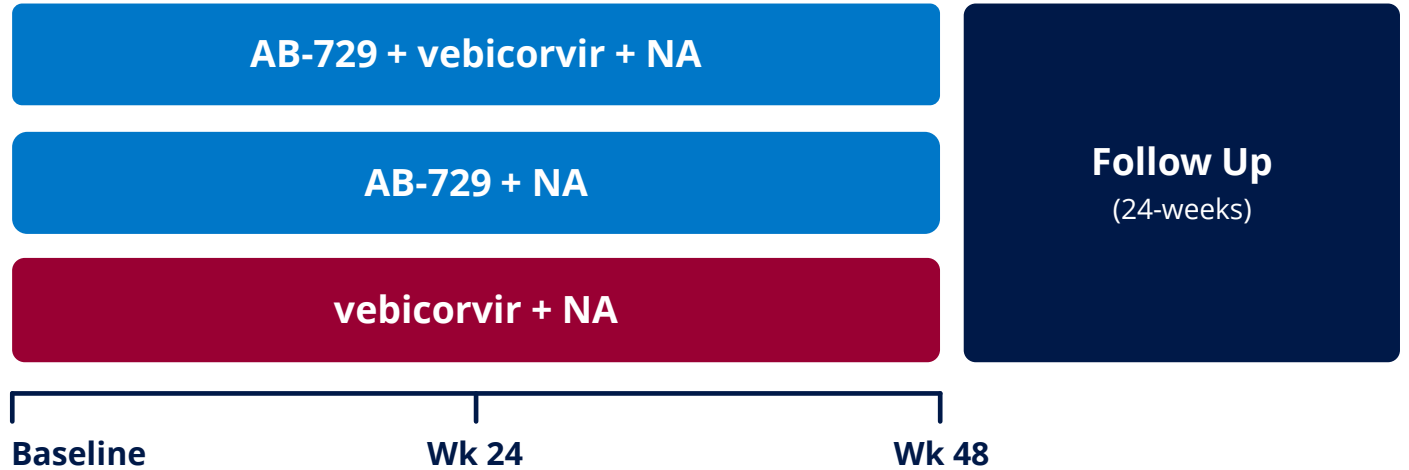
AB-729

Clinical Collaboration



Provides accelerated AB-729 combination POC with Assembly's capsid inhibitor and a NA

Fully enrolled; initial data 2H 2022



Primary objective: evaluate safety and tolerability of vebicorvir in combination with AB-729 in patients with cHBV receiving NA therapy

n= ~60 virologically-suppressed patients with cHBV infection

Equal sharing of expertise and costs for this POC open-label trial

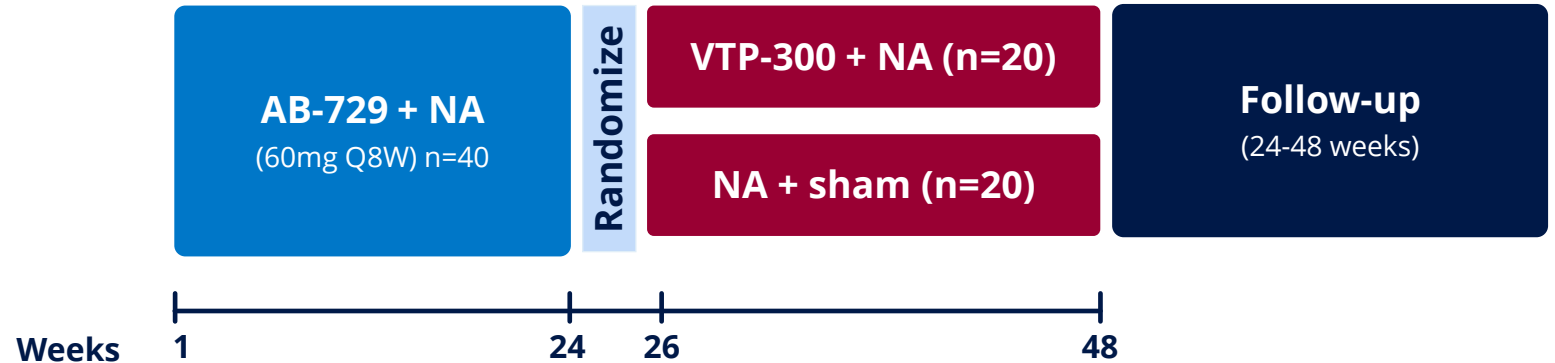
AB-729-202:

Phase 2a POC Clinical Trial



POC Phase 2a clinical trial evaluating AB-729 in combination with Vaccitech's immunotherapeutic, VTP-300, and a NA

Expected to initiate 1H 2022



Primary objective: evaluate safety and reactogenicity of AB-729 followed by VTP-300 or placebo

At week 48 all participants who are eligible to discontinue NA therapy will be followed for 48-weeks

Full rights retained by the Companies of their respective product candidates and all costs split equally

AB-729

Strategic Collaboration



Exclusive Licensing* and Strategic Partnership

Develop, manufacture and commercialize AB-729 in mainland China, Hong Kong, Macau and Taiwan

*ABUS retains the non-exclusive right to develop and manufacture in the Qilu territory for exploiting AB-729 in the rest of the world

Deal economics for Arbutus:

\$40M	Upfront payment
\$15M	Equity investment
Up to \$245M	Commercialization and milestone payments
Double-digit up to low twenties %	Tiered royalties on annual sales

Qilu Pharmaceutical:

one of the leading pharmaceutical companies in China, provides development, manufacturing, and commercialization expertise to this partnership



AB-836

Next Generation Capsid Inhibitor

**Potential for increased efficacy
and enhanced resistance profile**

relative to earlier generation
capsid inhibitors

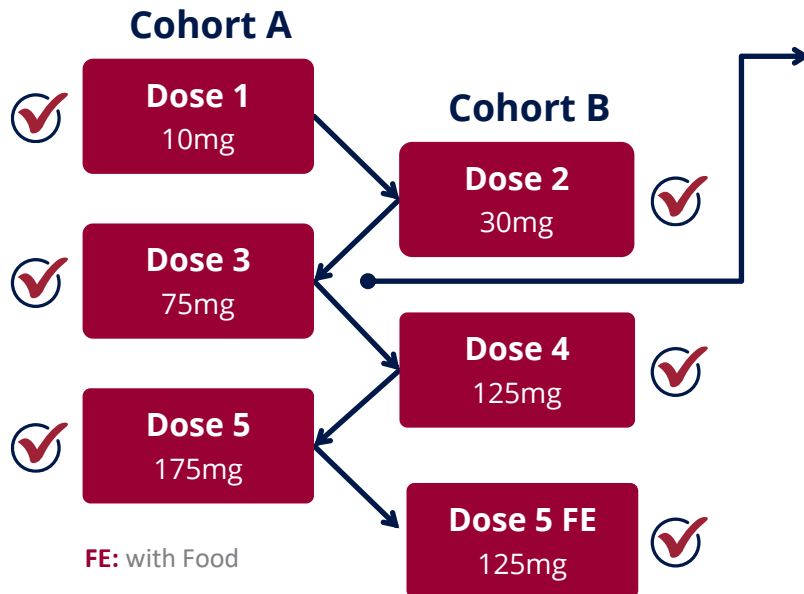
Novel chemical series differentiated from other Class II capsid inhibitors

- Leverages a novel binding site within the core protein dimer-dimer interface
- Improved intrinsic potency with $EC_{50} \leq 10$ nM
- Active against NA-resistant variants
- Potential to address known capsid resistant variants T33N and I105T
- Provides the potential for low dose and wide therapeutic window
- Demonstrates high liver concentrations in multiple species
- Once daily dosing
- Pan-genotypic
- Combinable with other MOA agents

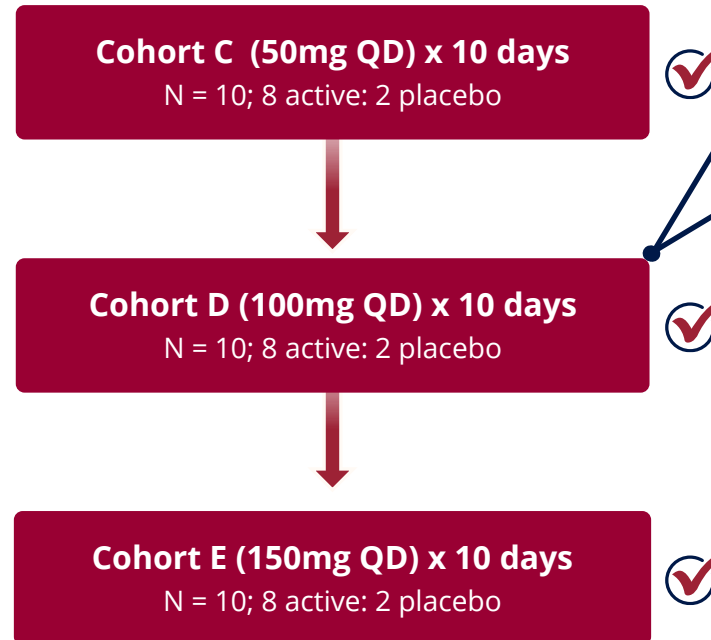
AB-836-001 Phase 1a/1b Clinical Trial

Part 1: Single Ascending Dose In Healthy Subjects

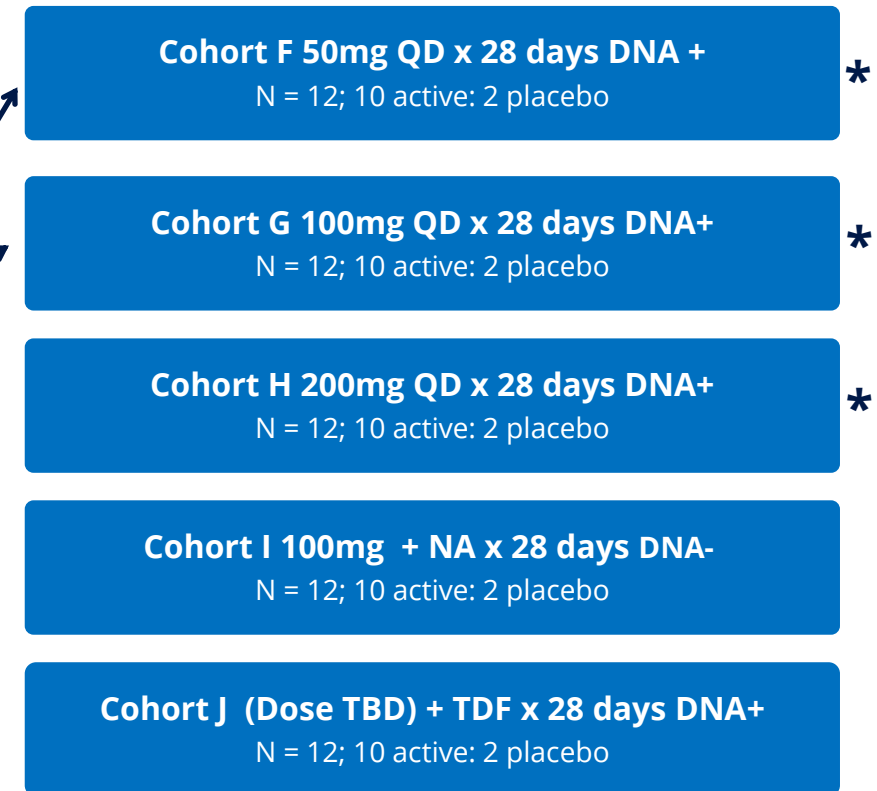
Alternating Cohorts A and B
n=8/cohort; 6 active: 2 placebo



Part 2: Multiple Ascending Dose in Healthy Subjects



Part 3: Multiple Doses In Chronic Hepatitis B Patients



* ongoing

AB-836-001 Preliminary Data

Parts 1 & 2: Single and multi-doses of AB-836 in healthy subjects

Safety:

- No deaths or SAEs
- 1 subject (50mg once daily) discontinued on day 13 due to AE of agitation
- All but 3 AEs were mild (Grade 2 headache, agitation and bronchitis), one assessed as drug related (Grade 1 rash)
- No clinically significant abnormalities in clinical laboratory tests, ECGs, vital signs or physical exams noted.

Part 3: 50mg and 100mg of AB-836 once daily for 28 days in patients with cHBV

Safety:

- No deaths or AEs
- 1 patient had transient increase in ALT from baseline Grade 1 to Grade 3 that resolved with continued dosing
- No clinical abnormalities in ECGs, vital signs or physical exams

Efficacy (Cohort G - 100 mg QD):

- Provides robust antiviral activity - mean (SE) \log_{10} change from baseline of -3.1 (0.5) at Day 28 (n=4)

Part 3 of the trial continues to enroll patients

AB-161: Next Generation Oral RNA Destabilizer

Safety

Next generation small molecule anticipated to circumvent non-clinical safety findings with first generation molecule

Novelty

Offers a novel mechanism of action to **reduce HBsAg, other viral proteins and viral RNA**

Convenience

Potential for an **oral HBsAg reducing agent** and all oral combination therapy

AB-161 is currently in IND-enabling studies

AB-101: Oral PD-L1 Inhibitor for HBV Immune Reactivation

Rationale

- HBV immune tolerance is a critical driver of cHBV infection
- PD-1:PD-L1 checkpoint axis plays a key role in immune tolerization in cHBV
- PD-L1 expression upregulated during HBV infection
- PD-1 upregulated on HBV-specific T- and B-cells
- Inhibition associated with HBsAg loss in some cHBV patients

Small-Molecule Inhibitor Approach

- Allows controlled checkpoint blockade
- Enables oral dosing
- Designed to reduce systemic safety issues seen with Abs

AB-101

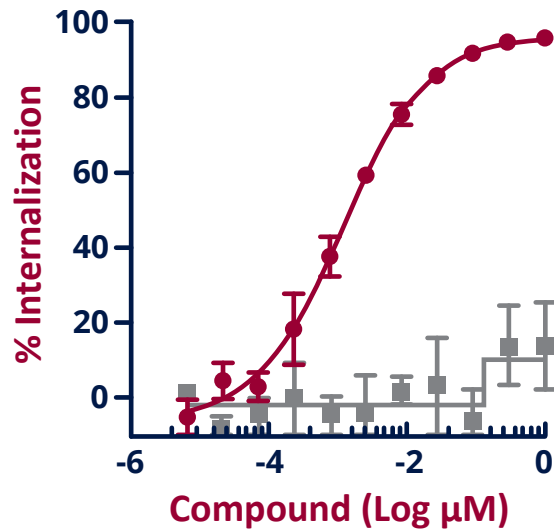
- Blocks PD-L1/PD-1 interaction at sub-nM concentrations
- Activates HBV-specific immune responses in T-cells from cHBV patients *in vitro*
- Novel MOA identified
- Demonstrates a robust checkpoint mediated *in vivo* effect
- Improves HBV-specific T- and B-cell responses *ex vivo*

AB-101 is currently in IND-enabling studies

AB-101: Small-Molecule Oral PD-L1 Inhibitor for HBV

AB-101 is highly potent with demonstrated activity against cells from chronic HBV patients

AB-101 reduces PD-L1 on the surface of human primary myeloid cells



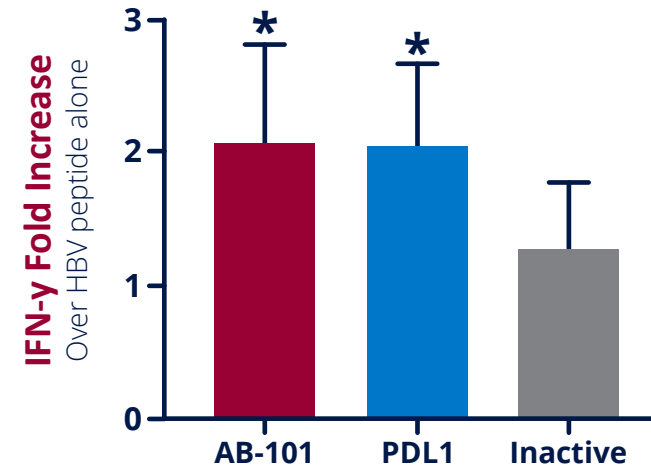
IC₅₀ = 1.9 nM

● AB-101
■ Inactive Compound

CD14+ PBMCs
N=3 Donors

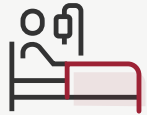
Data presented at HepDART 2021

AB-101 reinvigorates HBV-specific cHBV patient T-cells



PBMCs
N= cells from 9 cHBV patients
*p<0.05

Pan-Coronavirus Overview



Cause & Symptoms

- Coronavirus Infections, such as COVID-19 caused by SAR-CoV-2
- Spreads through breathing out droplets and small particles that contain the virus
- Older adults and people with severe underlying conditions at higher risk of developing serious complications
- Virus continues to mutate with variant strains developing



Population

- ~6.9M deaths globally¹
- In US: ~80M cases; 1M deaths (as of March 2022)



Treatments

Vaccines

- Durability of effect uncertain, boosters required, limited efficacy on variant strains

Therapies

- Sub-optimal

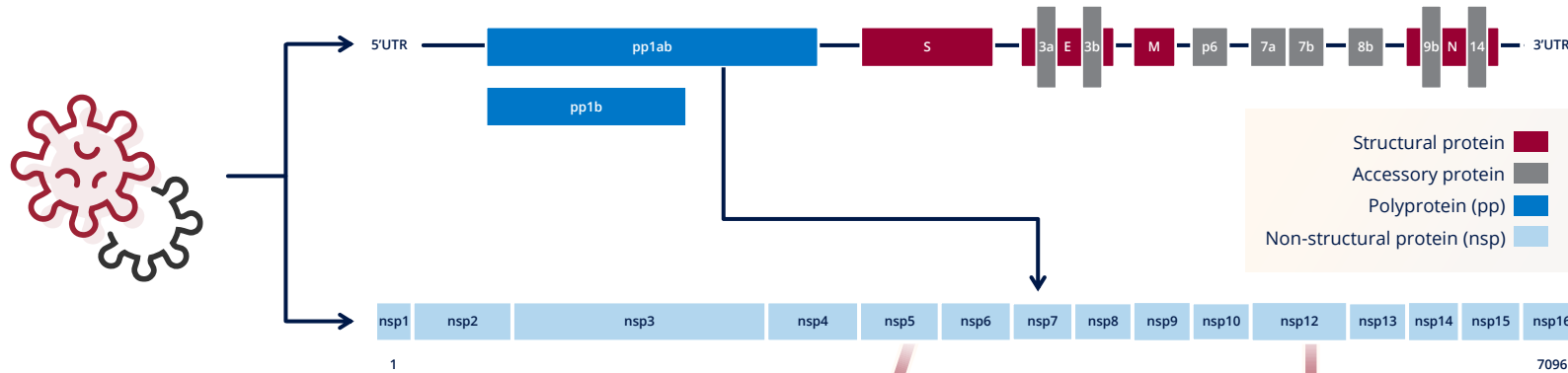


Rationale

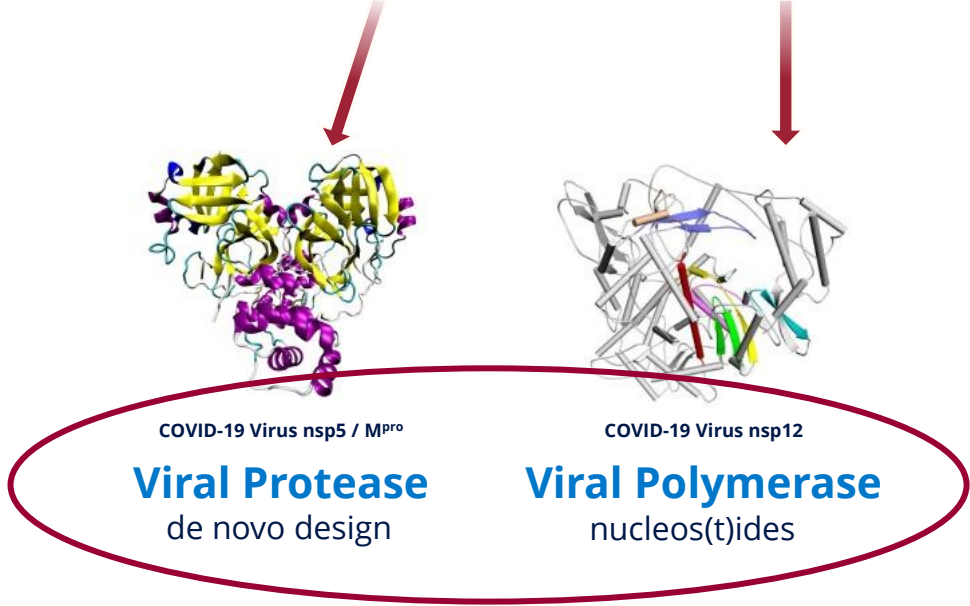
- Pan-coronavirus focused: need for effective and safe therapies to combat COVID-19 and future coronavirus outbreaks
- Address essential viral targets – nsp12 viral polymerase and nsp5 viral protease
- Potential for combo therapy to enhance efficacy and reduce symptomology

Coronavirus Strategy

Leveraging our proven expertise and capabilities in antiviral drug discovery and development



nsp5 protease & nsp12 polymerase
essential enzymes for replication



Collaboration

- Proprietary DEL library screening and structural biology for M^{Pro} inhibitor discovery
- First milestone reached; several unique compound series that inhibit nsp5 protease identified
- Advancing to lead optimization stage

Arbutus Strategy

- Pan-coronavirus focused
- Positioned to nominate a clinical candidate against one of these targets in 2022

2022 Key Milestones

Cash balance* of \$221.8M as of March 31, 2022, cash runway into Q2 2024

Milestone	Anticipated Timing 2022
AB-836, next generation oral capsid inhibitor: Data from Phase 1a/1b clinical trial in patients with chronic HBV	1H
AB-729, RNAi therapeutic: Initiate a triple combination Phase 2a POC clinical trial with VTP-300 (Vaccitech) and a NA	1H
AB-729: Follow-up data (long-term on- and off-treatment) from Phase 1a/1b, evaluating multiple doses and dosing schedules	1H/2H
AB-729: Initial data from Phase 2a combination trial with NA therapy and Peg-IFN α -2a	2H
AB-729: Initial data from Phase 2a combination trial with VBR (Assembly) and a NA	2H
AB-101, oral PD-L1 inhibitor compound: Complete IND-enabling studies	2H
AB-161, next generation oral RNA destabilizer: Complete IND-enabling studies	2H
COVID M ^{pro} : Advance clinical candidate that inhibits the SARS-CoV-2 nsp5 main protease into IND-enabling studies	2H

*Consists of cash, cash balance, cash equivalents and marketable securities

Thank You

