Corporate Presentation

NASDAQ: ABUS

www.arbutusbio.com

May 2, 2024

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' expectations regarding its technology licensed to third parties; the expected timing and payments associated with strategic and/or licensing agreements; the patent infringement lawsuits; 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 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; and the parties may never realize the expected benefits of the collaborations. 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 for Value Creation

Leverage the proven track record of success established with our team's expertise in understanding and treating viral infections by discovering and developing a differentiated pipeline of therapies targeting chronic HBV.

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

HBV: Hepatitis B Virus | **cHBV:** chronic HBV

Investment Highlights

Indications with significant unmet medical need & large market opportunities

Focused on developing a functional cure for HBV

Team with virology expertise and proven track record

Discovered, developed & commercialized multiple drugs

Portfolio of internally discovered assets with distinct MOAs

RNAi therapeutic PD-L1 inhibitor

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

Data shows imdusiran is generally safe and well-tolerated and has shown meaningful suppression of HBsAg while on- or off-treatment

Strong financial position

Cash runway through Q2 2026

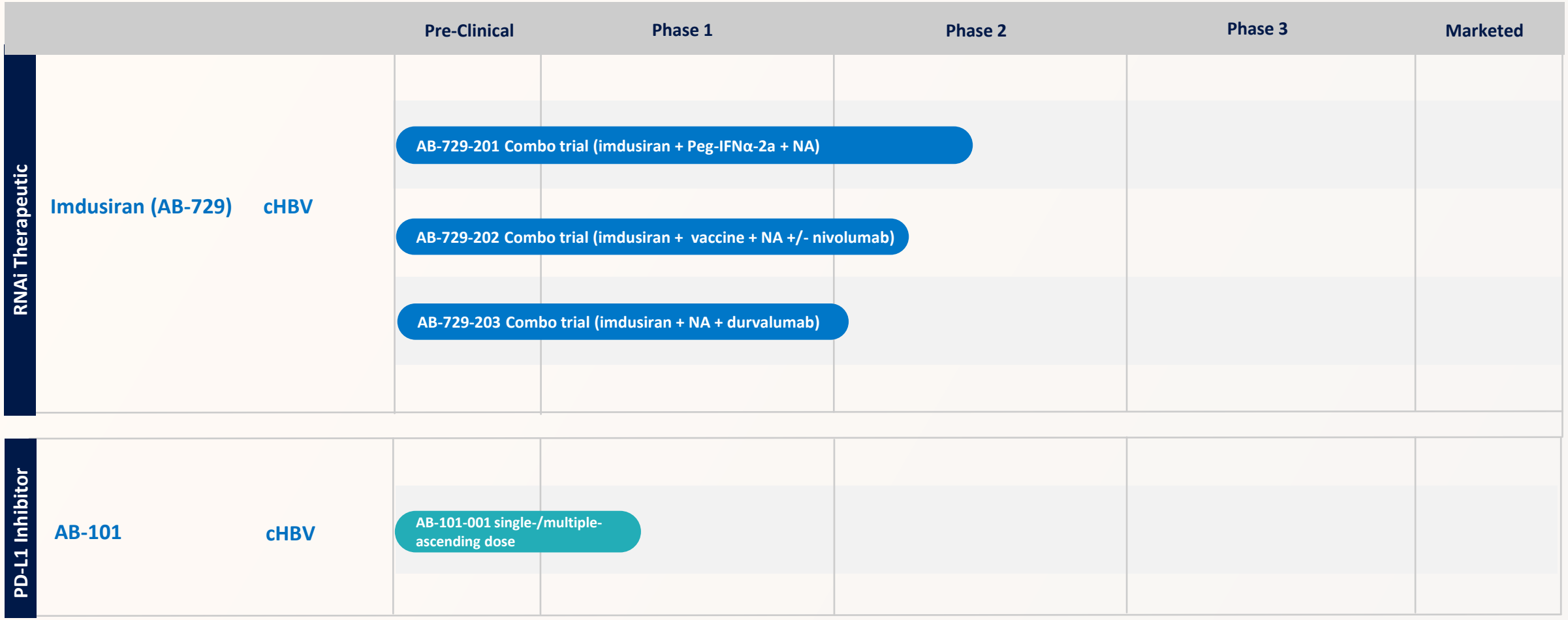
Patented LNP technology

Receiving licensing royalties arising from Alnylam's Onpattro® and seeking damages from patent litigation suits filed against Moderna & Pfizer/BioNTech for COVID-19 vaccine sales

Arbutus BIOPHARMA

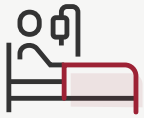
MOA: Mechanism of Action | **PD-L1:** Programmed death-ligand 1 | **HBsAg:** Hepatitis B surface antigen

Pipeline



NA: Nucleoside Analogue

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-IFNα – 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

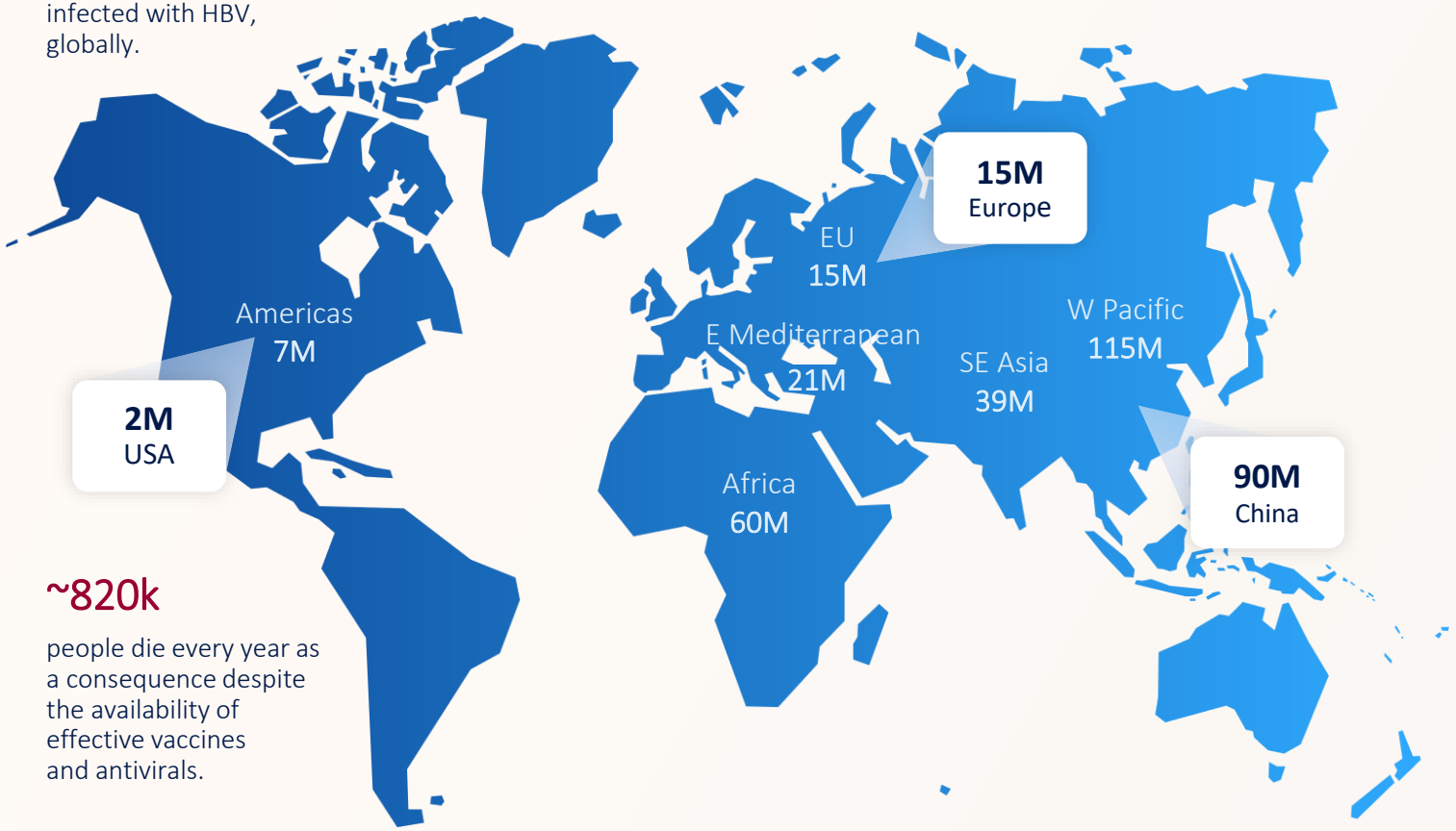
Arbutus BIOPHARMA

HBsAg: HBV Surface Antigen | **HCC:** Hepatocellular carcinoma

HBV Presents a Significant Unmet Medical Need

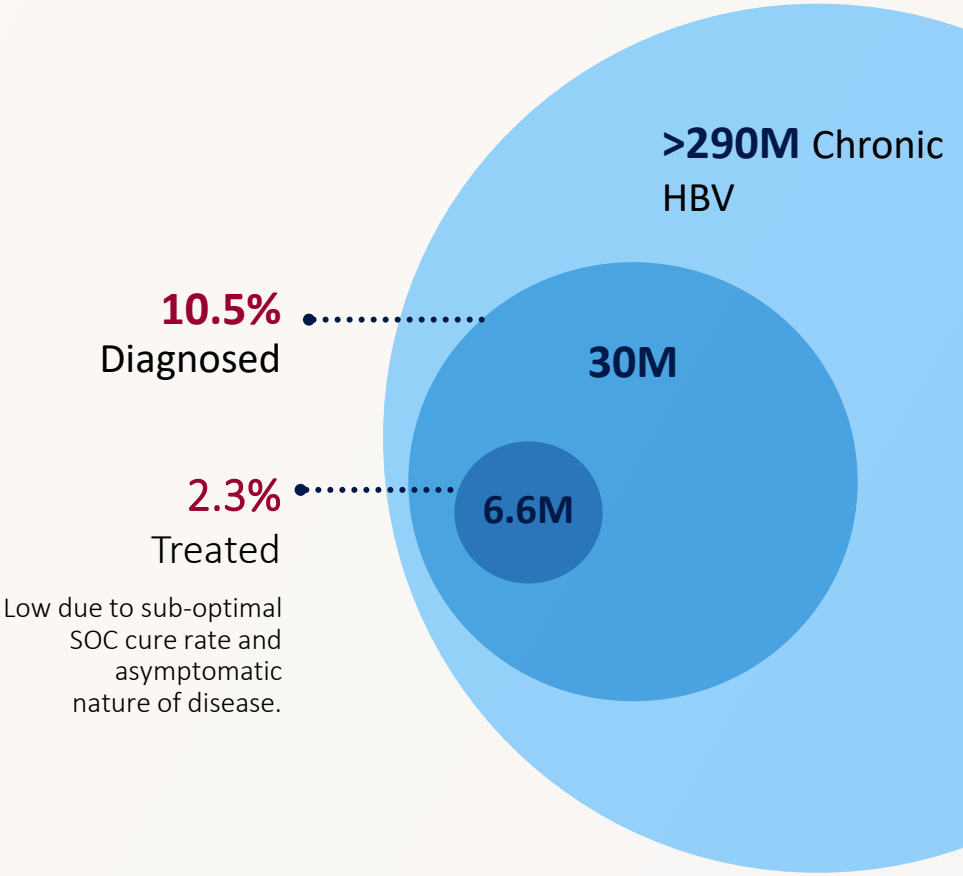
>290M

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.

SOC: Standard of Care

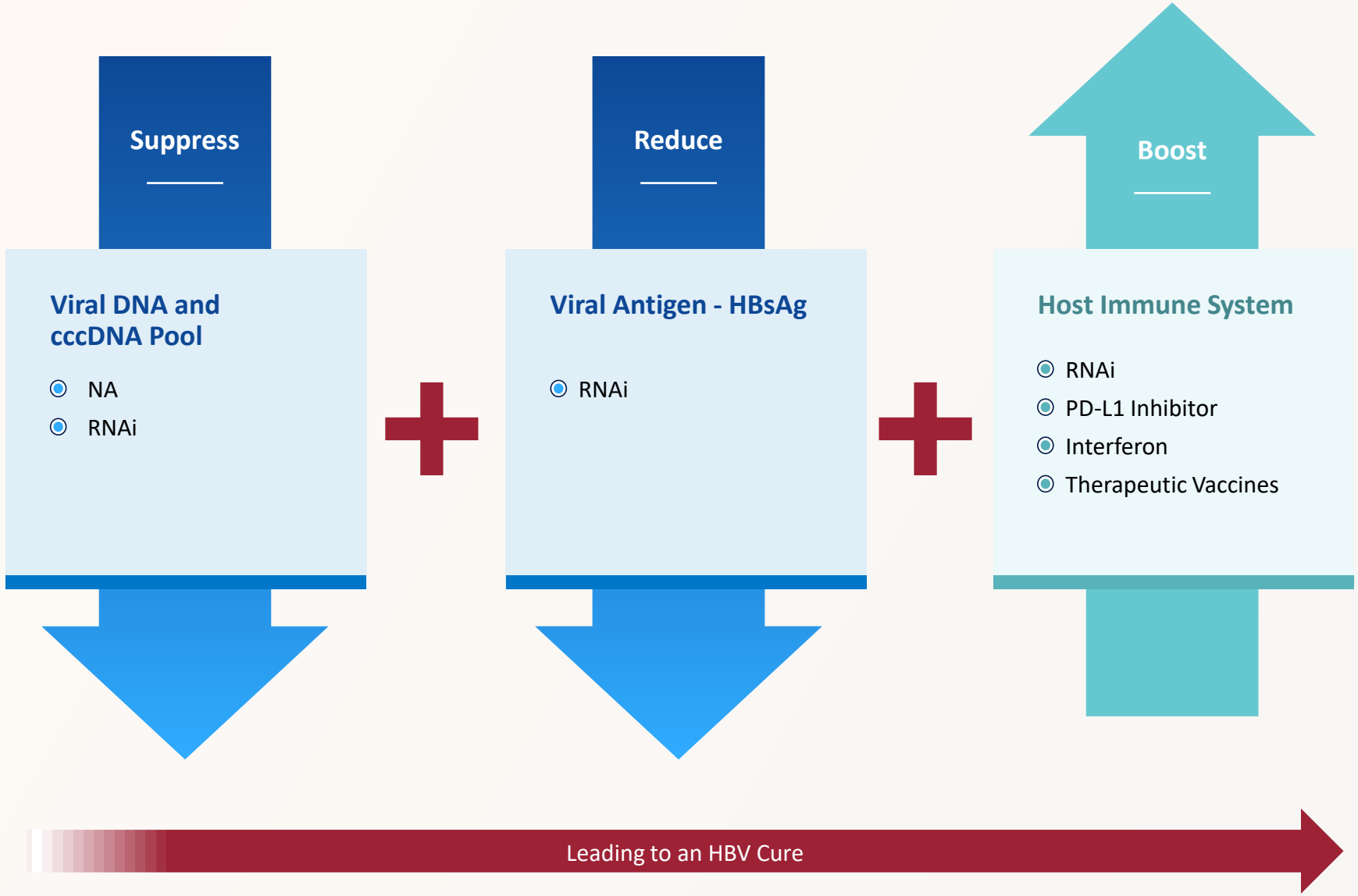
Sources: https://www.who.int/news-room/fact-sheets/detail/hepatitis-b

https://www.hepb.org/what-is-hepatitis-b/what-is-hepb/facts-and-figures/

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.



RNAi Therapeutic

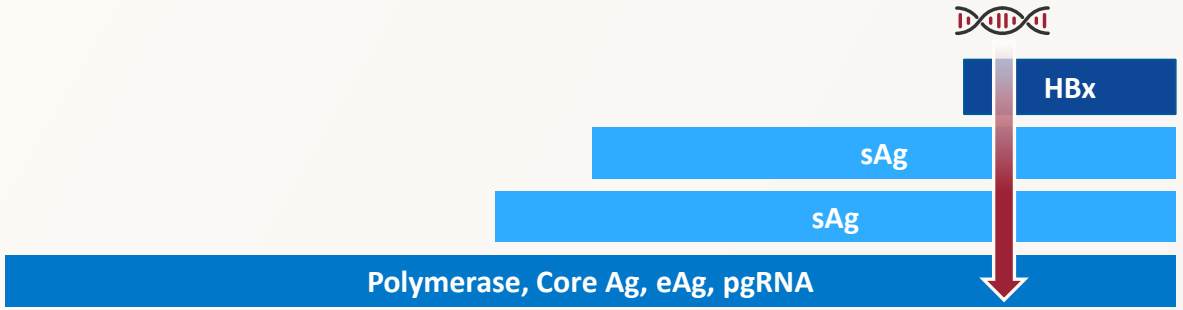
Arbutus BIOPHARMA

Imdusiran

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 other agents
- Actively targets the liver
- Active against cccDNA derived and integrated HBsAg transcripts
- Clean profile in long term preclinical safety studies



Arbutus BIOPHARMA

AB-729-001 Phase 1a/1b Clinical Trial: Key Takeaways

Imdusiran was generally safe and well-tolerated after completing dosing in over 40 CHB patients

Imdusiran provided robust and comparable HBsAg declines regardless of dose, dosing interval, HBeAg or DNA status

A reduction in HBsAg and HBV DNA was sustained in the majority of patients that stopped all treatments

Imdusiran results in HBV-specific T-cell immune restoration and decrease of exhausted T-cells in some patients

Imdusiran 60 mg every 8 weeks for 24 to 48 weeks selected for Phase 2 trials

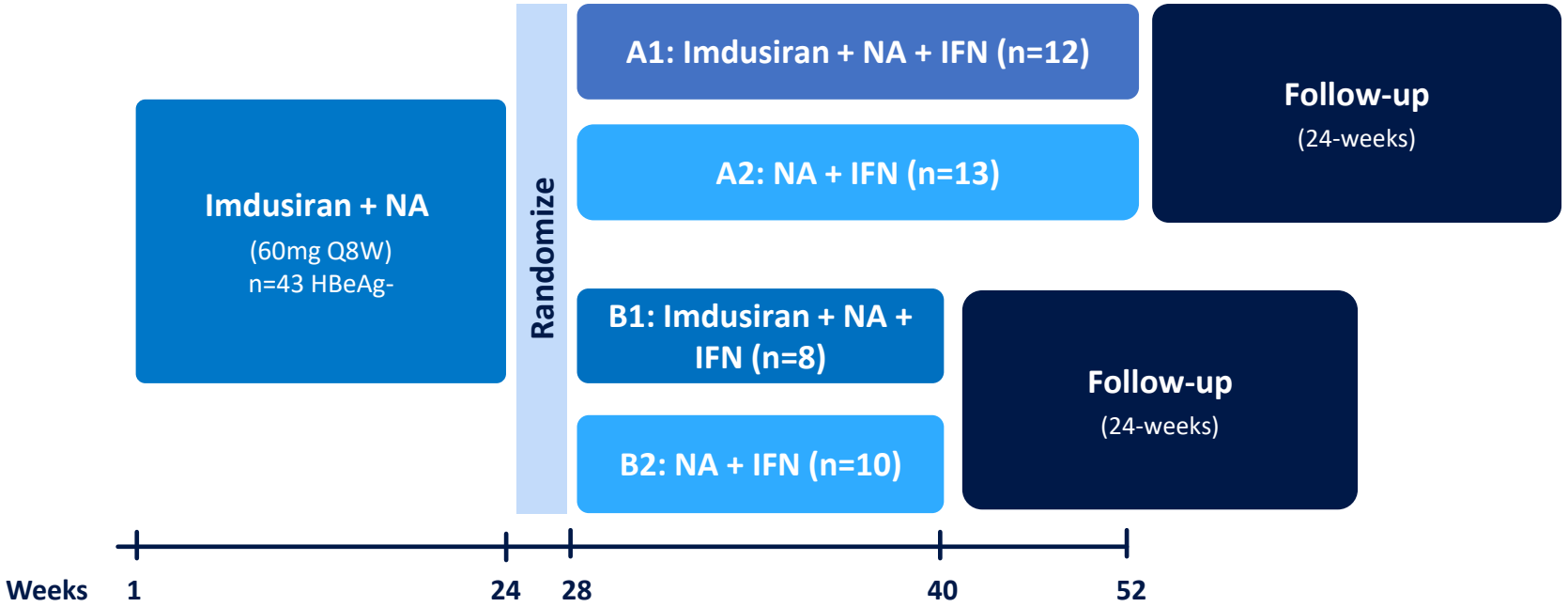
Arbutus BIOPHARMA

AB-729-201:

Phase 2a POC Clinical Trial

Imdusiran in combination with **ongoing NA therapy and short courses of Peg-IFNα-2a in cHBV patients**

Preliminary end-of-treatment data expected in 1H 2024



Multi-center, open-label Phase 2a

Primary objective: evaluate safety and tolerability of imdusiran in combination with Peg-IFNa-2a in patients with NA-suppressed cHBV

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

Preliminary data through 12 weeks of IFN treatment for the first 12 subjects were presented at EASL Congress 2023; additional data to be presented at EASL Congress 2024

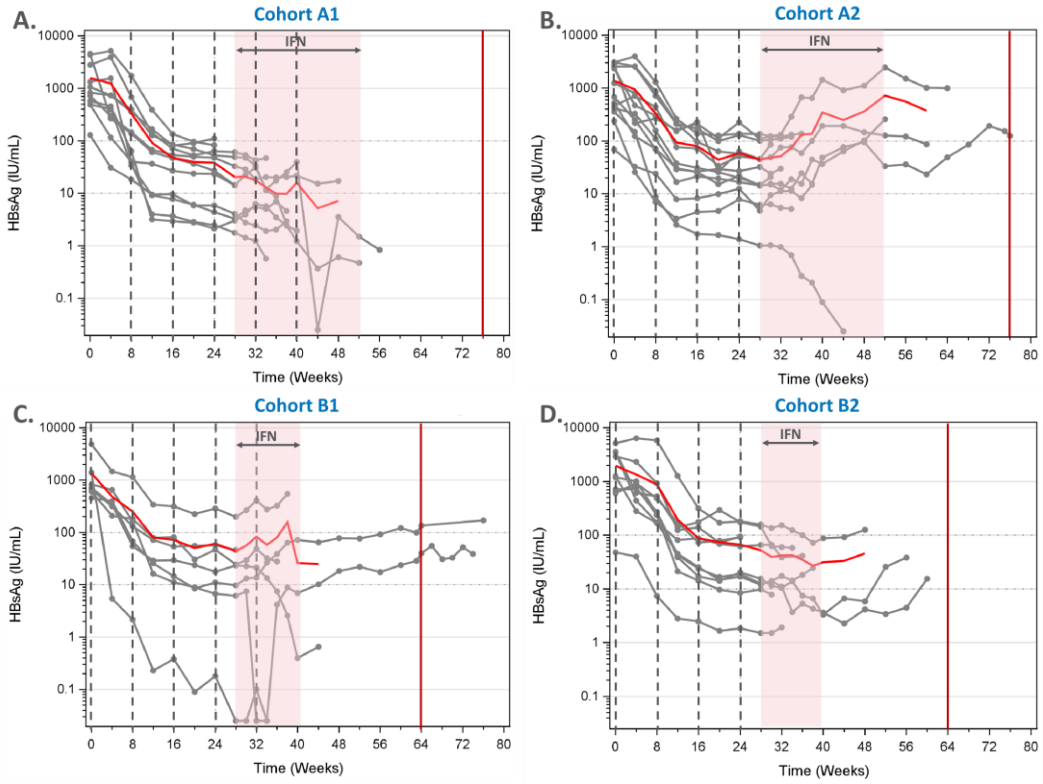
POC: Proof of Concept

AB-729-201: Imdusiran Treatment Led to Consistent HBsAg Declines; IFN may contribute to additional declines

Mean (SE) HBsAg log_{10} Change from Baseline at Key Timepoints

Timepoint	Cohort A1 AB-729+NA+IFN 24 wks N	Cohort A1 AB-729+NA+IFN 24 wks Mean (SE)	Cohort A2 NA + IFN 24 wks N	Cohort A2 NA + IFN 24 wks Mean (SE)	Cohort B1 AB-729+NA+IFN 12 wks N	Cohort B1 AB-729+NA+IFN 12 wks Mean (SE)	Cohort B2 NA + IFN 12 wks N	Cohort B2 NA + IFN 12 wks Mean (SE)	Total N	Total Mean (SE)
Baseline level	11	2.99 (0.14)	13	2.91 (0.14)	7	2.98 (0.13)	10	3.06 (0.19)	43	2.98 (0.07)
Δ at Week 12	11	-1.42 (0.18)	13	-1.30 (0.10)	7	-1.59 (0.38)	10	-1.25 (0.12)	43	-1.37 (0.09)
Δ at Week 24	11	-1.71 (0.17)	13	-1.43 (0.12)	7	-1.80 (0.37)	10	-1.54 (0.10)	42	-1.59 (0.09)
Δ at Week 40 (12 weeks IFN*)	4	-2.22 (0.28)	5	-1.31 (0.60)	3	-2.04 (0.71)	3	-2.20 (0.23)	15	-1.88 (0.26)
Δ at Week 52 (24 weeks IFN#)	2	-3.36 (0.12)	4	-0.56 (0.27)	2	-1.17 (0.40)	2	-1.99 (0.33)	10	-1.53 (0.37)

Individual and Mean HBsAg Results by Cohort Over Time



Preliminary results:

- Treatment was generally well tolerated with continued HBsAg declines in some patients during the IFN treatment period
- Mean HBsAg decline during lead-in phase was 1.6 log_{10} at week 24 of treatment
- 93% of patients (38 of 41 randomized) had HBsAg levels <100 IU/mL during treatment period
- 4 patients reached HBsAg levels <LLOQ during IFN treatment

Arbutus BIOPHARMA

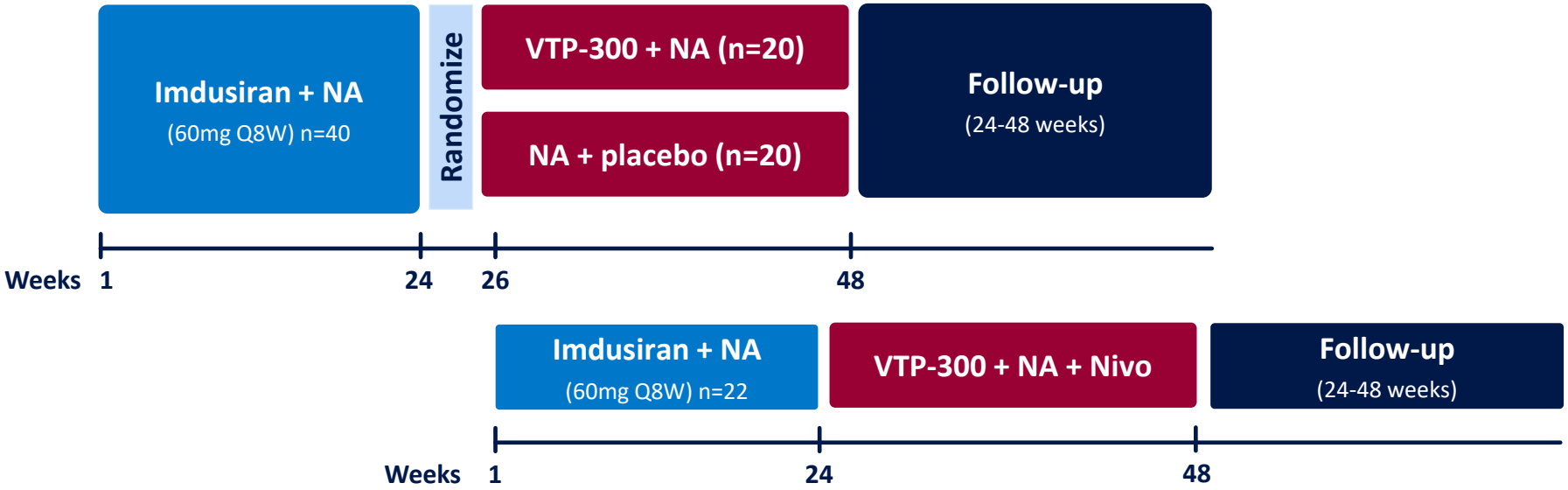
Data presented at EASL 2023

AB-729-202:

Phase 2a POC Clinical Trial

POC Phase 2a clinical trial evaluating imdusiran in combination with Barinthus Bio's immunotherapeutic, VTP-300, NA and with or without low dose nivolumab

Preliminary end-of-treatment data for imdusiran + VTP-300 + NA expected in 1H 2024



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

At Week 48 all participants who are eligible to discontinue NA therapy will be followed for an additional 48 weeks

Preliminary results presented at AASLD The Liver Meeting 2023; additional data to be presented at EASL Congress 2024

Clinical trial expanded to include an additional arm with nivolumab (Opdivo®) with preliminary data expected in 2H 2024

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

POC: Proof of Concept

AB-729-202: HBsAg Levels were Reduced and Sustained with Imdusiran and VTP-300 Treatment

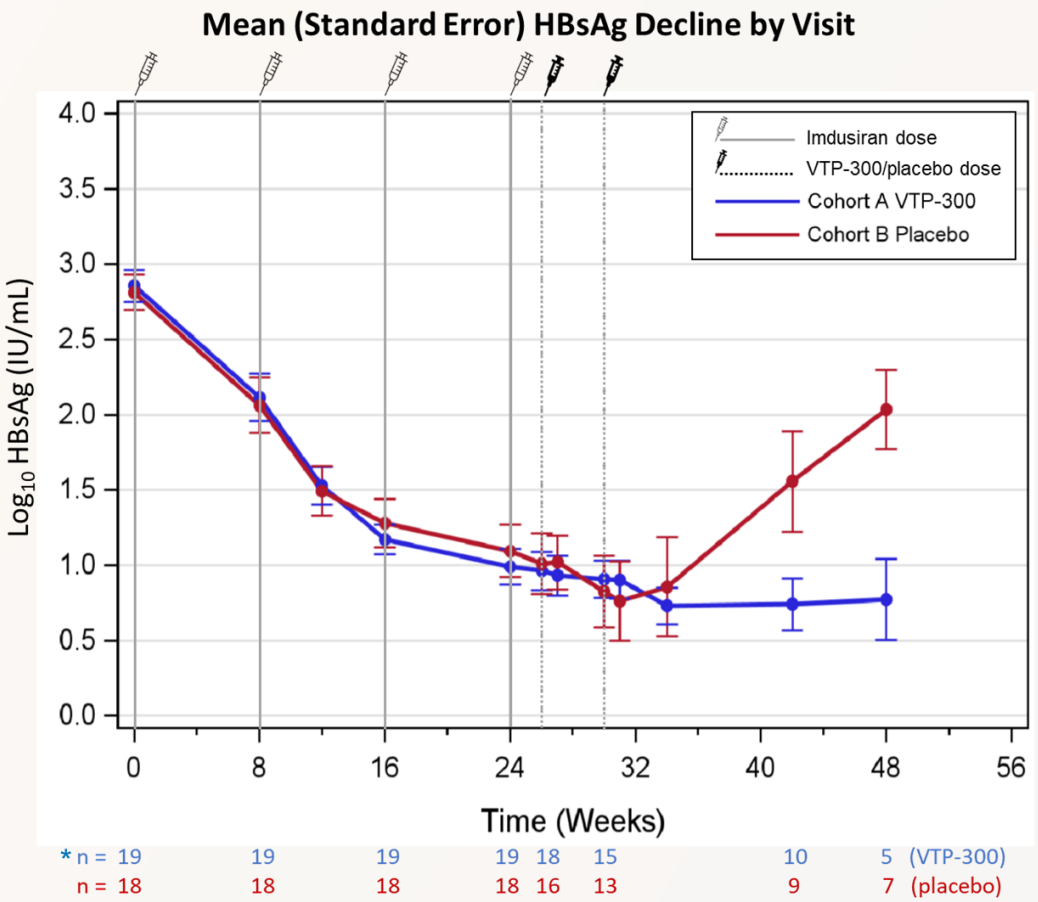
Mean HBsAg Change from Baseline and Key Milestones

Study Week	Mean (SE) Change from Baseline N, log_{10} IU/mL (SE)				HBsAg <100 IU/mL N, (%)		HBsAg <10 IU/mL N, (%)	
	imdusiran 60 mg Q8W x 4 doses							
Baseline	40	2.85 (0.07)			NA		NA	
12	39	-1.31 (0.07)			32/39 (82.1)		7/39 (17.9)	
26	34	-1.86 (0.09)			33/34 (97.1)		15/34 (44.1)	
	N	VTP-300	N	PBO	VTP-300	PBO	VTP-300	PBO
34	13	-2.12 (0.13)	13	-2.01 (0.31)	13/13 (100)	11/13 (84.6)	8/13 (61.5)	6/13 (46.2)
48	5	-1.87 (0.41)	7	-1.03 (0.21)	5/5 (100)	4/7 (57.1)	3/5 (60.0)	0/7 (0)

Preliminary results:

- Robust reductions of HBsAg were seen during the imdusiran treatment period, with 33/34 (97%) of patients <100 IU/mL at the time of VTP-300/placebo administration
- VTP-300 appears to maintain low HBsAg levels in the early post-treatment period, as the mean HBsAg levels in the placebo group begin to rebound starting ~12 weeks after the last dose of imdusiran
- All VTP-300 treated patients have maintained HBsAg <100 IU/mL through Week 48, 60% have maintained HBsAg <10 IU/mL, and all have qualified to stop NA therapy

Mean HBsAg Change from Baseline by Treatment Group

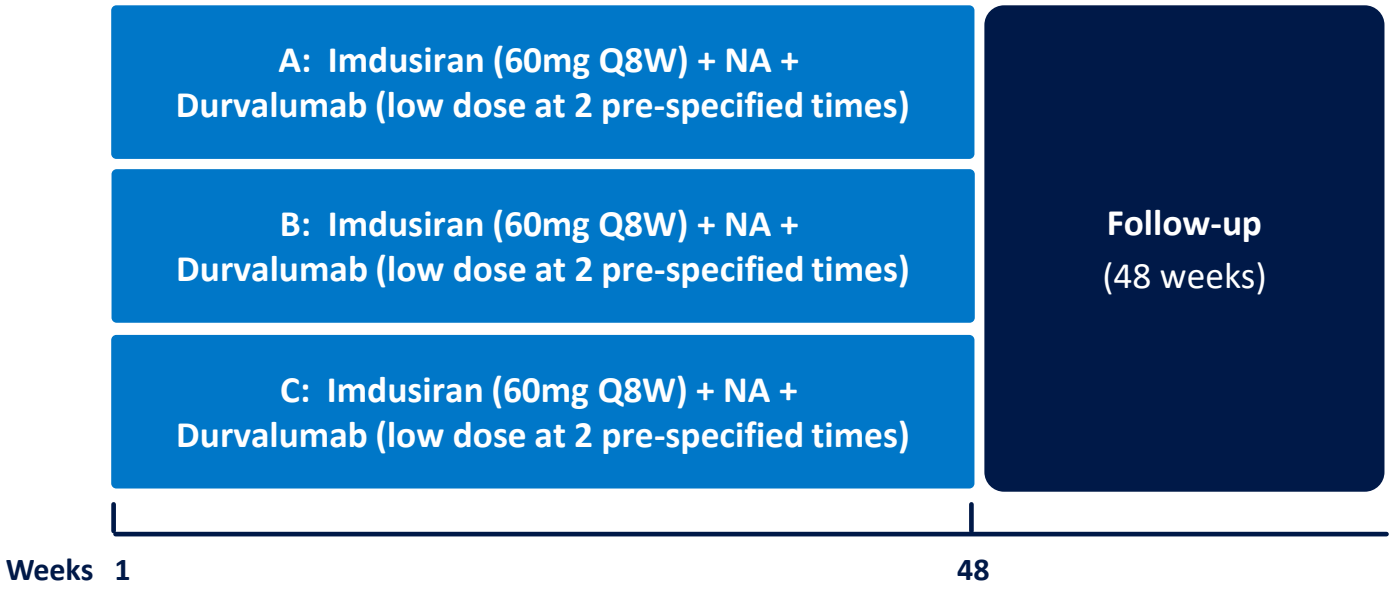


AB-729-203:

Phase 2a POC Clinical Trial

Imdusiran in combination with NA therapy and intermittent low doses of durvalumab, an anti-PD-L1 monoclonal antibody

Screening initiated in 1H 2024



Primary objective: evaluate safety, tolerability and antiviral activity of imdusiran and NA therapy in combination with durvalumab

N=30 virologically-suppressed patients randomized into 3 separate cohorts

POC: Proof of Concept

Imdusiran

Strategic Collaboration

QILU PHARMACEUTICAL

Exclusive Licensing* and Strategic Partnership

Develop, manufacture and commercialize imdusiran 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 (received in 2022)
$15M	Equity investment (received in 2022)
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

Arbutus BIOPHARMA

Oral PD-L1 Inhibitor

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*

Currently in a Phase 1a/1b clinical trial

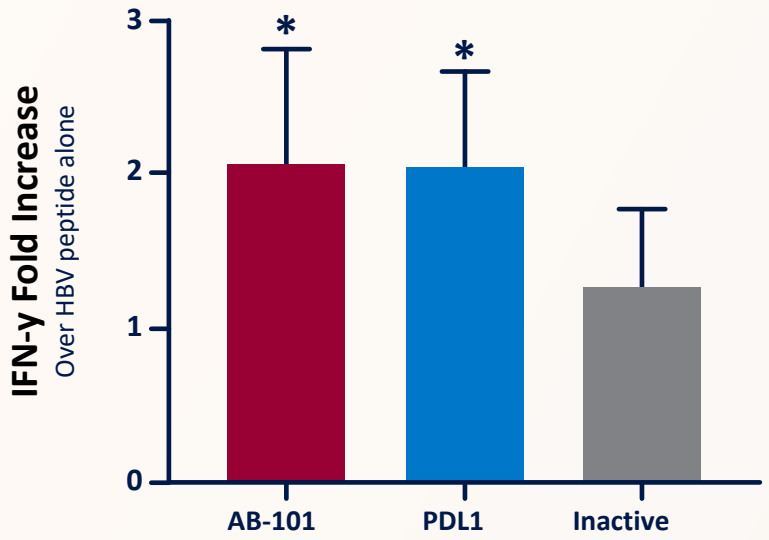
Arbutus BIOPHARMA

PD-1: Programmed death ligand protein | **Abs:** Antibodies

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

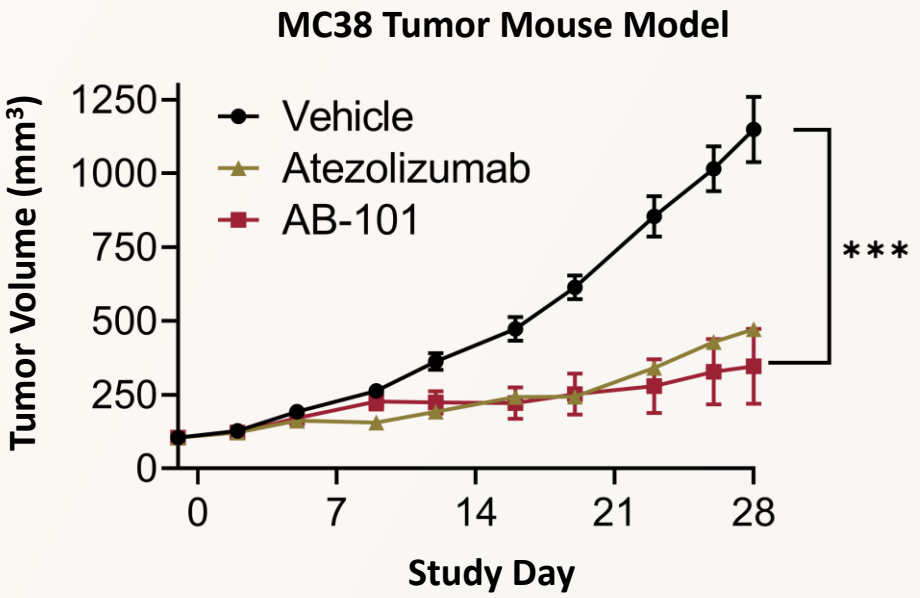
AB-101 is highly potent and activates HBV specific immune cells from chronic HBV patients

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



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

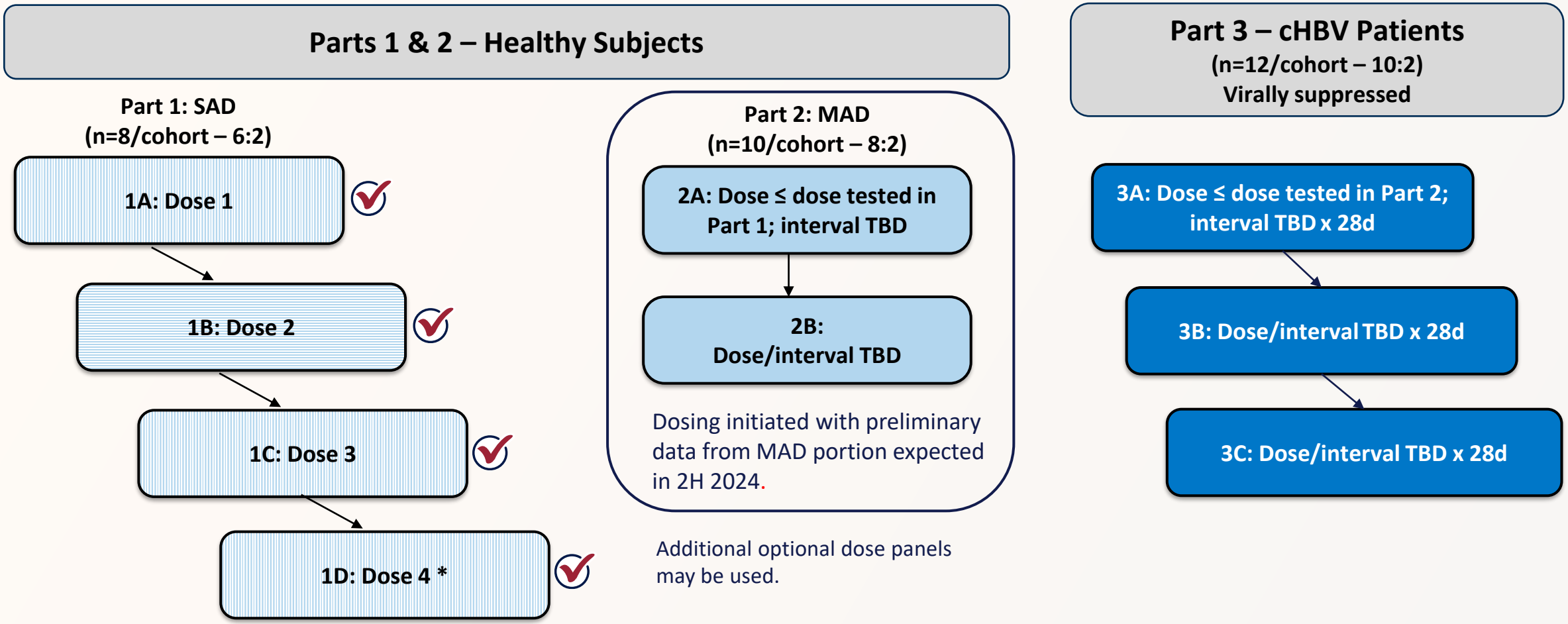
Once daily oral administration of AB-101 resulted in profound tumor reduction



Data presented at EASL 2022

PBMC: Peripheral Blood Mononuclear Cells

AB-101-001: Phase 1a/1b Clinical Trial with AB-101



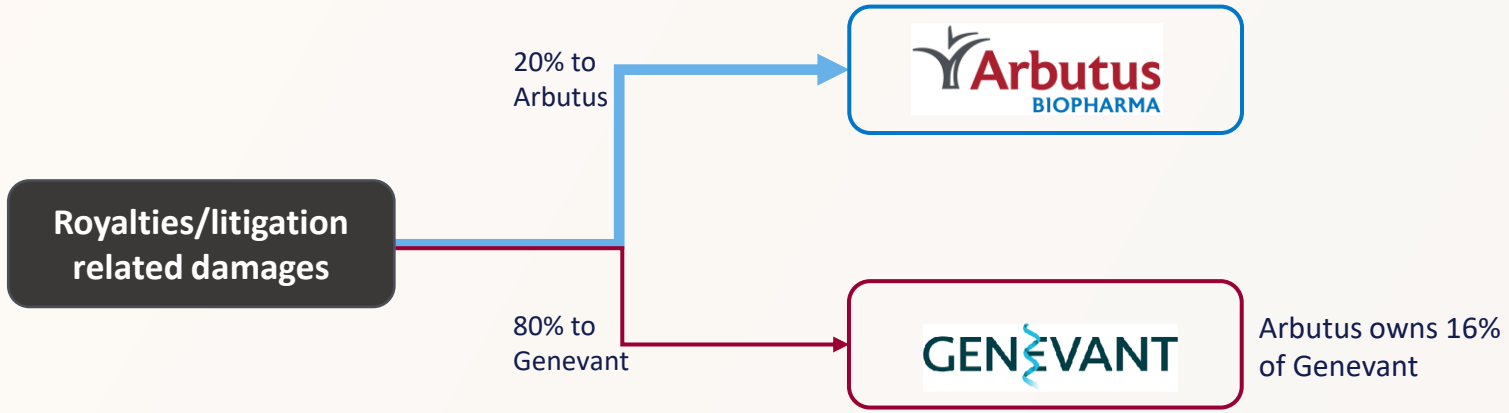
* Preliminary data shows AB-101 is well tolerated and binds to the receptor target. In the 25mg cohort, all 5 evaluable subjects showed evidence of receptor occupancy between 50-100%.

Arbutus BIOPHARMA

LNP Litigation: Update

- **Moderna - Trial date April 21, 2025***
  - Fact discovery on-going
  - Markman Hearing occurred February 8, 2024 – judge heard arguments on claim construction.
    - Court provided ruling on April 3 and agreed with Arbutus's position on the majority of the claims
  - Next Steps
    - Expert reports / depositions

- **Pfizer**
  - Lawsuit ongoing
  - Date for claim construction hearing has not been set



*Above referenced date is included in the 2/27/2024 Court's Scheduling Order Extension and is subject to change.

Arbutus BIOPHARMA

2024 Key Milestones

Cash balance* of $138M as of March 31, 2024, cash runway through Q2 2026; 2024 net cash burn between $63M and $67M

Milestone	Anticipated Timing 2024
AB-729-201 Phase 2a (imdusiran + IFN): End-of-treatment data	1H
AB-729-202 Phase 2a (imdusiran + VTP-300): End-of-treatment data	1H
AB-729-203 (imdusiran + durvalumab): Initiate Phase 2a clinical trial	1H ✓
AB-101-001: Preliminary data from healthy subject cohorts	1H ✓
AB-729-202 Phase 2a (imdusiran + VTP-300 + nivolumab): End-of-treatment data	2H
AB-101-001: Preliminary data from multiple-ascending dose healthy subject cohorts	2H

*Consists of cash, cash equivalents and marketable securities

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Thank You

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