

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 8-K**

**CURRENT REPORT**

**Pursuant to Section 13 or 15(d)  
of the Securities Exchange Act of 1934**

**Date of Report (Date of earliest event reported): June 6, 2024**

**Arbutus Biopharma Corporation**

(Exact name of registrant as specified in its charter)

**British Columbia, Canada**  
(State or Other Jurisdiction of Incorporation)

**001-34949**  
(Commission File Number)

**98-0597776**  
(I.R.S. Employer Identification No.)

**701 Veterans Circle**  
**Warminster, Pennsylvania 18974**  
(Address of Principal Executive Offices) (Zip Code)

**(267) 469-0914**  
(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Shares, without par value	ABUS	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

**Item 8.01. Other Events.**

On June 6, 2024, Arbutus Biopharma Corporation (“Arbutus” or the “Company”) issued a press release announcing new preliminary end-of-treatment (EOT) data from the Phase 2a clinical trial (IM-PROVE II, AB-729-202) in patients receiving ongoing standard-of-care nucleos(t)ide analogue (NA) therapy indicating that treatment with imdusiran, Arbutus’ RNAi therapeutic, followed by Barinthus Biotherapeutic’s T-cell stimulating immunotherapeutic, VTP-300, was generally safe, well-tolerated and led to maintenance of lower HBsAg levels during the post-treatment follow-up period in patients with cHBV. The data were presented today by Dr. Kosh Agarwal, MD, Consultant Hepatologist and Transplant Physician at the Institute of Liver Studies at King’s College Hospital, London, during a session focused on new treatments for viral hepatitis B at the European Association for the Study of the Liver (EASL) Congress. A copy of the press release is filed herewith as Exhibit 99.1 and is incorporated by reference herein.

On June 6, 2024, the Company posted an updated corporate presentation on its website at [www.arbutusbio.com](http://www.arbutusbio.com). A copy of the presentation is filed herewith as Exhibit 99.2 and is incorporated by reference herein.

**Item 9.01. Financial Statements and Exhibits.****(d) Exhibits.**

<b><u>Exhibit Number</u></b>	<b><u>Description</u></b>
<a href="#">99.1</a>	<a href="#">Press Release dated June 6, 2024</a>
<a href="#">99.2</a>	<a href="#">Presentation dated June 6, 2024</a>
104	Cover page interactive data file (formatted as inline XBRL).

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**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

**Arbutus Biopharma Corporation**

Date: June 6, 2024

By: /s/ David C. Hastings  
David C. Hastings  
Chief Financial Officer

## Treatment with Arbutus' Imdusiran and VTP-300 Achieves Statistical Significance in Lowering HBsAg Levels

Data highlighted in oral presentation at the European Association for the Study of the Liver (EASL) Congress

WARMISTER, Pa., June 06, 2024 (GLOBE NEWSWIRE) -- Arbutus Biopharma Corporation (Nasdaq: ABUS) ("Arbutus" or the "Company"), a clinical-stage biopharmaceutical company leveraging its extensive virology expertise to develop a functional cure for people with chronic hepatitis B virus (cHBV) infection, announced new preliminary end-of-treatment (EOT) data from the Phase 2a clinical trial (IM-PROVE II, AB-729-202) in patients receiving ongoing standard-of-care nucleos(t)ide analogue (NA) therapy indicating that treatment with imdusiran, Arbutus' RNAi therapeutic, followed by Barinthus Biotherapeutic's T-cell stimulating immunotherapeutic, VTP-300, was generally safe, well-tolerated and led to maintenance of lower HBsAg levels during the post-treatment follow-up period in patients with cHBV. The data were presented today by Dr. Kosh Agarwal, MD, Consultant Hepatologist and Transplant Physician at the Institute of Liver Studies at King's College Hospital, London, during a session focused on new treatments for viral hepatitis B at the European Association for the Study of the Liver (EASL) Congress.

Dr. Agarwal presented the following data from 38 of 40 patients that were on stable NA therapy throughout the treatment period, received imdusiran (60mg every 8 weeks) for 24 weeks and were then randomized to receive either VTP-300 (treatment arm) or placebo at Weeks 26 and 30:

- Robust reductions of HBsAg were seen during the imdusiran lead-in period ( $-1.8 \log_{10}$  by week 26) with 95% of patients achieving HBsAg  $<100$  IU/mL before undergoing dosing in the treatment or placebo arm.
- At 24-weeks post-EOT, there was a significant difference ( $p < 0.05$ ) in HBsAg levels between the treatment arm ( $n=5$ ) and placebo ( $n=6$ ).
- 94% of patients ( $n=18/19$ ) in the treatment arm achieved HBsAg levels of  $<100$  IU/mL and 36% ( $n=7/19$ ) had  $<10$  IU/mL at EOT (Week 48) compared to 84% ( $n=16/19$ ) and 21% ( $n=4/19$ ), respectively in the placebo arm.
  - Similarly, at 24-weeks post-EOT (Week 72), the treatment arm had lower HBsAg levels with 80% of patients ( $n=4/5$ ) at  $<100$  IU/mL and 60% ( $n=3/5$ ) at  $<10$  IU/mL compared to the placebo arm with 16% ( $n=1/6$ ) and 0% ( $n=0/6$ ), respectively.
- 84% of patients ( $n=16/19$ ) in the treatment arm met the NA therapy discontinuation criteria and stopped NA treatment after Week 48 compared to 53% ( $n=10/19$ ) in the placebo arm. One patient in the treatment arm achieved undetectable HBsAg and another had a  $>1.5 \log_{10}$  decline between the last two visits during the NA-therapy discontinuation follow-up period.
- Treatment with imdusiran and VTP-300 was generally safe and well-tolerated. There were no Serious Adverse Events (SAEs), Grade 3 or 4 Adverse Events (AEs) or discontinuations due to treatment. The most common treatment-related AEs in two or more patients were injection site-related (both imdusiran and VTP-300) and transient ALT increases (imdusiran).

Dr. Agarwal commented, "These data show that adding imdusiran and VTP-300 to ongoing NA therapy in cHBV patients meaningfully reduces HBsAg after the end of the treatment period. I am impressed with the number of patients that qualified to stop NA therapy in the VTP-300 group and the clear separation in HBsAg levels between the treatment arm and placebo at Week 72."

"Imdusiran consistently provides notable reductions in HBsAg prior to combining with other therapies, such as VTP-300, which may improve the response rates of these immunomodulatory approaches," commented Dr. Karen Sims, Chief Medical Officer of Arbutus Biopharma. "We continue to believe that lowering surface antigen is key to promoting HBV-specific immune reawakening. We are looking forward to the data coming in the second half of this year from the additional arm of this trial evaluating the potential of nivolumab, a PD-1 monoclonal antibody, to further enhance responses to this treatment regimen."

The slides from the oral presentation at EASL 2024 can be accessed through the Arbutus website under Publications.

### IM-PROVE II Trial Details

The IM-PROVE II Phase 2a clinical trial initially enrolled 40 non-cirrhotic, virally suppressed cHBV patients that were on stable NA therapy. The patients initially received imdusiran (60mg every 8 weeks) for 24 weeks with on-going NA therapy and were then randomized to receive either VTP-300 or placebo at Weeks 26 and 30 (and conditionally at Week 38 if they experienced a  $>0.5 \log_{10}$  decline in HBsAg between Weeks 26 and 34). After completion of the treatment period at Week 48, those patients who met the following criteria: ALT levels less than two times the upper level of normal, HBV DNA less than the lower limit of quantitation, HBsAg  $<100$  IU/mL, and HBeAg negative, discontinued NA therapy and were followed for an additional 48 weeks. Those who did not meet the criteria continued on NA therapy for an additional 24 weeks of follow-up.

This trial has been amended to include an additional cohort of 20 patients that will receive imdusiran plus NA therapy for 24 weeks followed by VTP-300 plus up to two low doses of nivolumab, an approved PD-1 monoclonal antibody. Enrollment is complete in this additional cohort with preliminary data expected in the second half of 2024.

### About Imdusiran (AB-729)

Imdusiran is an RNA interference (RNAi) therapeutic specifically designed to reduce all HBV viral proteins and antigens including hepatitis B surface antigen, which is thought to be a key prerequisite to enable reawakening of a patient's immune system to respond to the virus. Imdusiran targets hepatocytes using Arbutus' novel covalently conjugated N-Acetylgalactosamine (GalNAc) delivery technology enabling subcutaneous delivery. Clinical data generated thus far has shown single and multiple doses of imdusiran to be generally safe and well-tolerated, while also providing meaningful reductions in hepatitis B surface antigen and hepatitis B DNA. Imdusiran is currently in multiple Phase 2a clinical trials.

### About HBV

Hepatitis B is a potentially life-threatening liver infection caused by the hepatitis B virus (HBV). HBV can cause chronic infection which leads to a higher risk of death from cirrhosis and liver cancer. Chronic HBV infection represents a significant unmet medical need. The World Health Organization estimates that over 250 million people worldwide suffer from chronic HBV infection, while other estimates indicate that approximately 2.4 million people in the United States suffer from chronic HBV infection. Approximately 820,000 people die every year from complications related to chronic HBV infection despite the availability of effective vaccines and current treatment options.

### **About Arbutus**

Arbutus Biopharma Corporation (Nasdaq: ABUS) is a clinical-stage biopharmaceutical company leveraging its extensive virology expertise to identify and develop novel therapeutics with distinct mechanisms of action, which can be combined to provide a functional cure for patients with chronic hepatitis B virus (cHBV). We believe the key to success in developing a functional cure involves suppressing HBV DNA, reducing surface antigen, and boosting HBV-specific immune responses. Our pipeline of internally developed, proprietary compounds includes an RNAi therapeutic, imdusiran (AB-729), and an oral PD-L1 inhibitor, AB-101. Imdusiran has generated meaningful clinical data demonstrating an impact on both surface antigen reduction and reawakening of the HBV-specific immune response. Imdusiran is currently in three Phase 2a combination clinical trials. AB-101 is currently being evaluated in a Phase 1a/1b clinical trial. For more information, visit [www.arbutusbio.com](http://www.arbutusbio.com).

### **Forward-Looking Statements and Information**

This press release contains forward-looking statements within the meaning of the Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and forward-looking information within the meaning of Canadian securities laws (collectively, forward-looking statements). Forward-looking statements in this press release include statements about the potential to lead to a functional cure for HBV, our future development plans for our product candidates; the expected results of our clinical development plans and clinical trials with respect to our product candidates; our expectations with respect to the release of data from our clinical trials and the expected timing thereof; and the potential for our product candidates to achieve success in clinical trials.

With respect to the forward-looking statements contained in this press release, Arbutus has made numerous assumptions regarding, among other things: the effectiveness and timeliness of preclinical 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.

Additionally, there are known and unknown risk factors which could cause Arbutus' actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements contained herein. Known risk factors include, among others: anticipated pre-clinical studies 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 product candidate; Arbutus may elect to change its 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; market shifts may require a change in strategic focus.

A more complete discussion of the risks and uncertainties facing Arbutus appears in Arbutus' Annual Report on Form 10-K, Arbutus' Quarterly Reports on Form 10-Q and Arbutus' continuous and periodic disclosure filings, which are available at [www.sedar.com](http://www.sedar.com) and at [www.sec.gov](http://www.sec.gov). 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.

### **Contact Information**

#### **Investors and Media**

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# Corporate Presentation

NASDAQ: ABUS

[www.arbutusbio.com](http://www.arbutusbio.com)

June 6, 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](http://www.sec.gov) and at [www.sedar.com](http://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  $\geq 20\%$  functional cure rate.



# 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



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

# Pipeline

		Pre-Clinical	Phase 1	Phase 2	Phase 3	Marketed
RNAI Therapeutic	Imdusiran (AB-729) cHBV		IM-PROVE I Combo trial (imdusiran + Peg-IFNα-2a + NA)			
			IM-PROVE II Combo trial (imdusiran + vaccine + NA +/- nivolumab)			
			IM-PROVE III Combo trial (imdusiran + NA + durvalumab)			
PD-L1 Inhibitor	AB-101 cHBV	AB-101-001 single-/multiple-ascending dose				



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-IFN $\alpha$  – administered weekly; poorly tolerated over 48 weeks of treatment
- <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 Pegasis, PEG-Intron, Baraclude and Viread Package Inserts

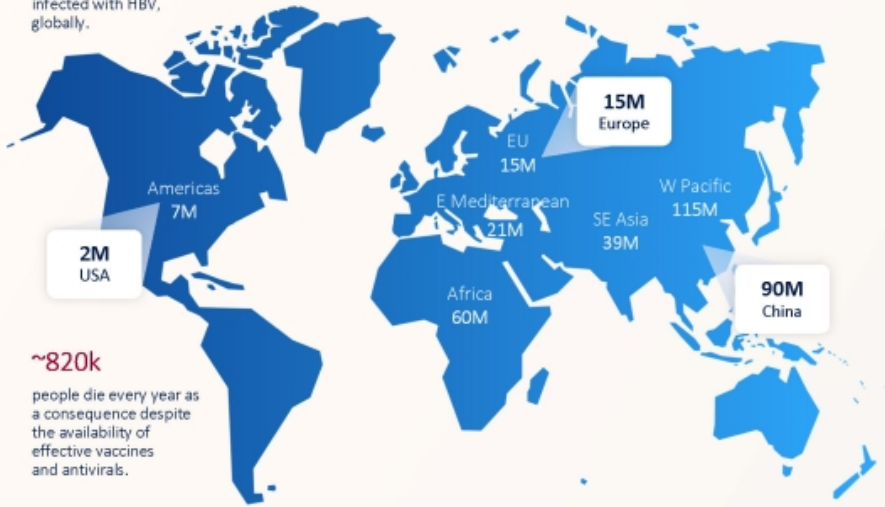


HBsAg: HBV Surface Antigen | HCC: Hepatocellular carcinoma

# HBV Presents a Significant Unmet Medical Need

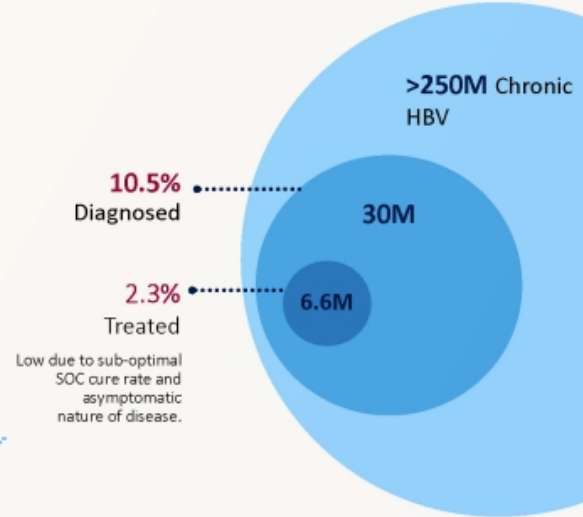
>250M

people are chronically infected with HBV, globally.



~820k

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



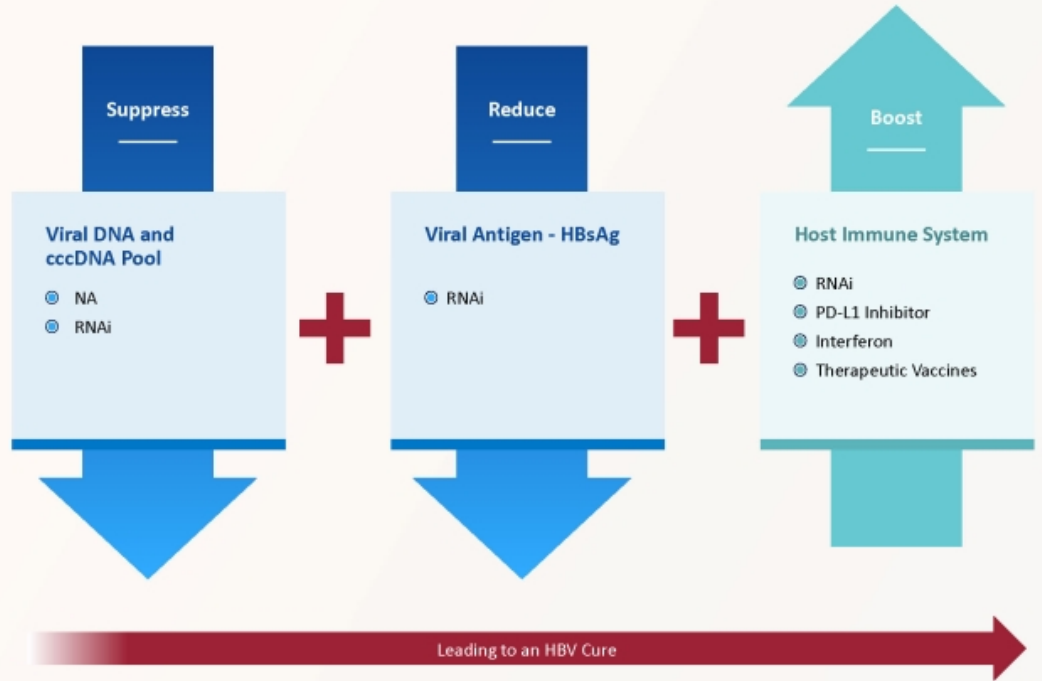
SOC: Standard of Care

Sources: <https://www.who.int/news-room/facts-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

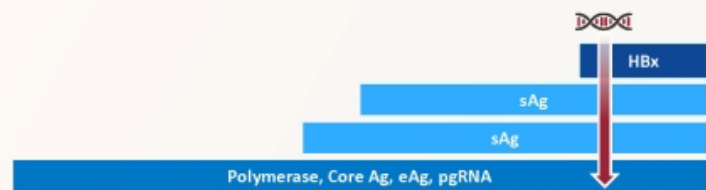
## Imdusiran

# 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



# 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

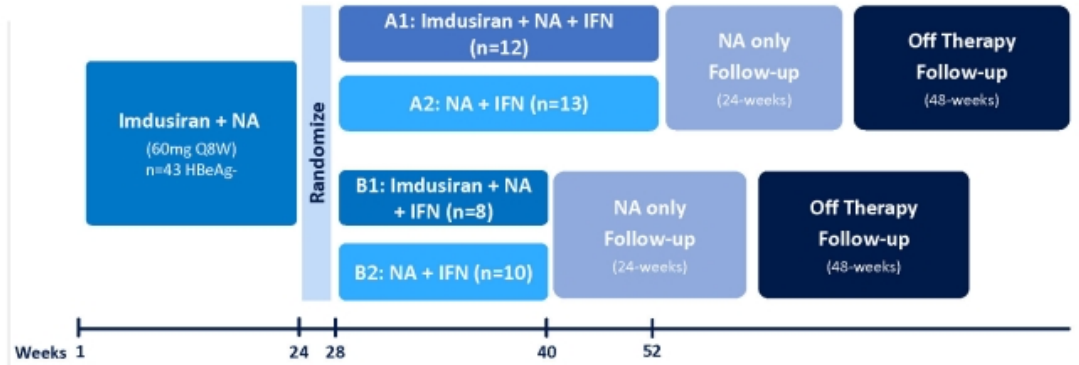
Imdusiran results in HBV-specific T-cell immune restoration and decrease of exhausted T-cells in some patients

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



# IM-PROVE I: Phase 2a POC Clinical Trial

Imdusiran in combination with ongoing NA therapy and short courses of Peg-IFN $\alpha$ -2a in CHBV patients



## Multi-center, open-label Phase 2a

**Primary objective:** evaluate safety and tolerability of imdusiran in combination with Peg-IFN $\alpha$ -2a in patients with NA-suppressed CHBV

After completing IFN treatment and the 24-week NA only follow-up period, patients are assessed to stop NA therapy. Those patients that stop NA therapy will be followed for an additional 48 weeks

Data presented at EASL Congress 2024 showed that 48 weeks of imdusiran plus 24 weeks of IFN therapy was generally safe, well-tolerated and achieved sustained undetectable HBsAg in 33% of patients after completion of IFN treatment, which were maintained in 100% of these patients 24 weeks after completing imdusiran and IFN treatment

POC: Proof of Concept

# IM-PROVE I: Imdusiran with Short Courses of IFN Leads to Undetectable HBsAg and Sustained HBsAg Loss

## Number of Patients with Undetectable HBsAg at Key Timepoints

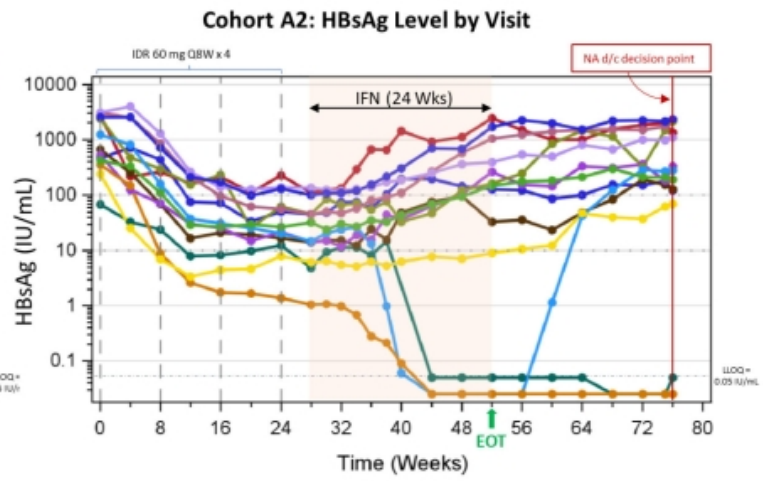
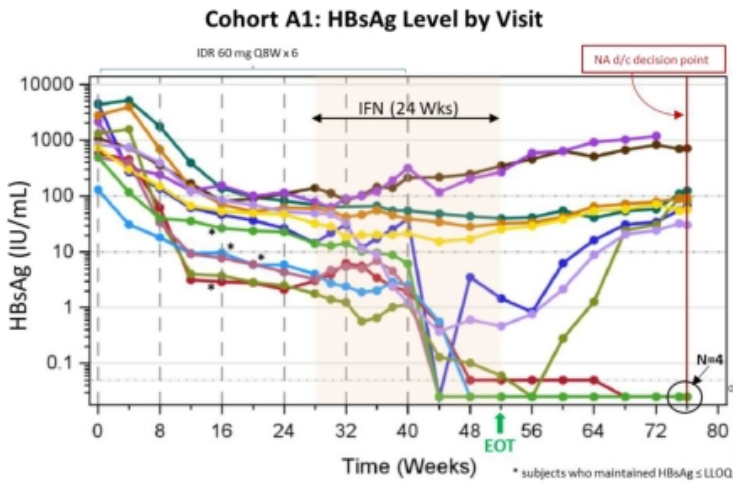
Achieved HBsAg $\leq$ LLOQ (0.05 IU/mL)	Cohort A1: IDR x 6 + NA + IFN x 24W (N = 12)	Cohort A2: IDR x 4 + NA + IFN x 24W (N = 13)
Anytime during treatment	6/12 (50%)	3/13 (23%)
EOT (W52)	4/12 (33.3%)	3/13 (23%)
	7/25 (28%)	
Next Assay negative	4/4	2/3
24 weeks post-EOT (NA therapy only)	4/12 (33.3%)	2/13 (15.4%)
	6/25 (24%)	
Next Assay negative	2*/4 (*1 subject pending testing)	2/2
Discontinued NA therapy	9/12 (75%)	3/13 (23%)

W: week; EOT: end-of-treatment; Next Assay LLOD=0.005 IU/mL

## Key Findings:

- More patients from the 24-week IFN Cohorts (A1/A2) reached and maintained undetectable HBsAg than in the 12-week IFN Cohorts (B1/B2); extending imdusiran dosing increased HBsAg reduction and HBsAg loss
- Patients with sustained HBsAg loss had corresponding high anti-HBs levels (43.8 to >1000 mIU/mL)
- Imdusiran and 24 weeks of IFN was generally safe and well-tolerated
  - No related-SAEs and no AEs leading to discontinuation
- All 6 undetectable patients (plus an additional 15 from all 4 Cohorts, n=21 total) discontinued NA therapy after the 24 weeks post-EOT visit
  - 2/6 undetectable patients have reached 12w off all therapy remain undetectable
  - 1 patient in Cohort B2 achieved functional cure during the NA discontinuation period

# IM-PROVE I: Imdusiran with 24 Weeks of IFN Reduces HBsAg Levels to Undetectable in 6 patients



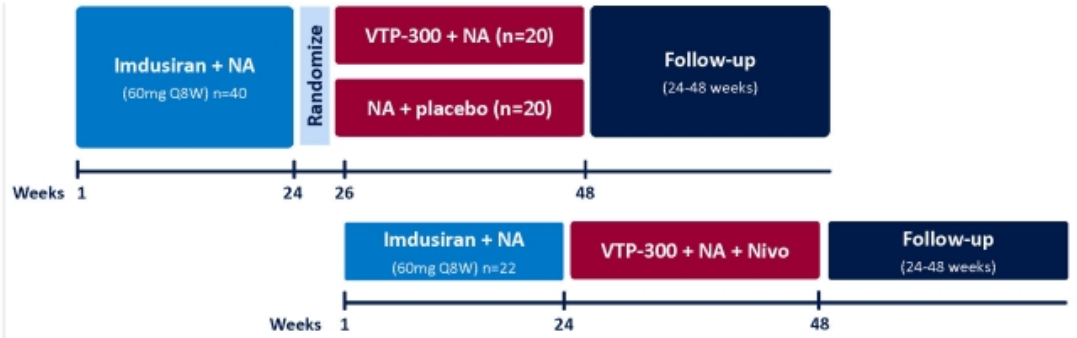
## IM-PROVE II:

# Phase 2a POC Clinical Trial



### POC Phase 2a clinical trial

evaluating imdusiran in combination with Barinthus Bio's immunotherapeutic, VTP-300, and NA with or without low dose nivolumab



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

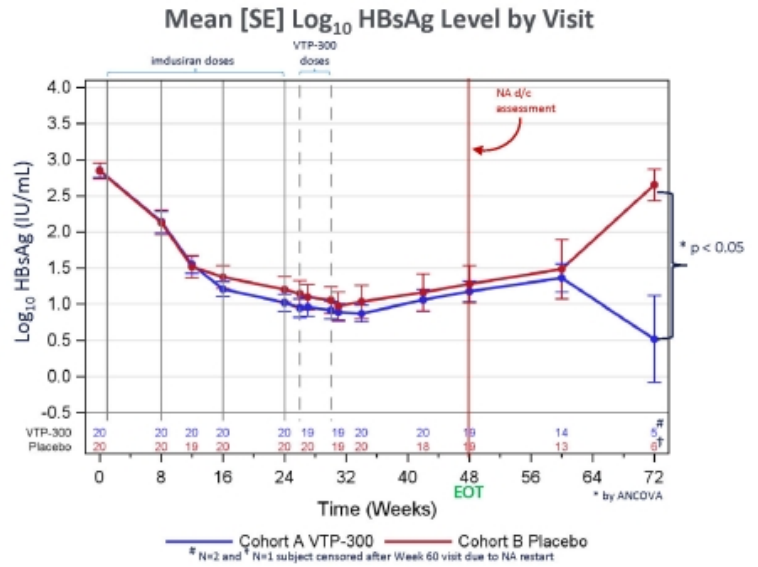
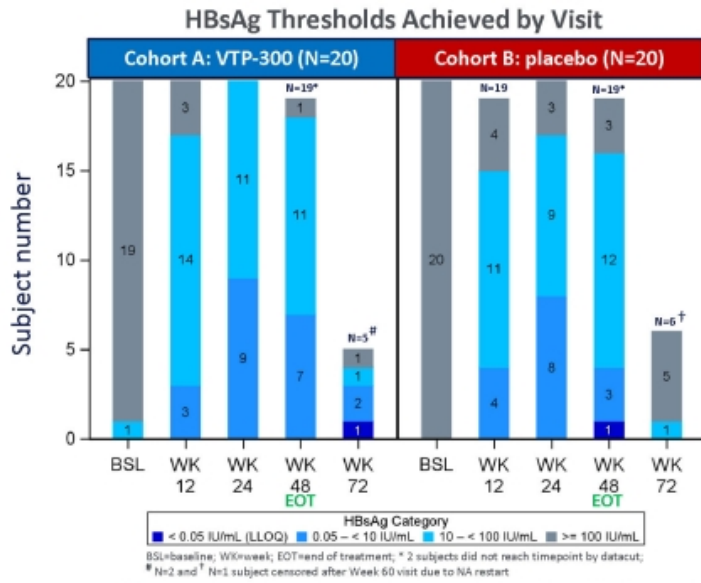
At Week 48 all participants who are eligible to discontinue NA therapy will be followed for an additional 48 weeks

Results presented at EASL Congress 2024 showed that imdusiran followed by VTP-300 was generally safe and well-tolerated and led to maintenance of lower HBsAg levels during the post-treatment follow-up period

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*

# IM-PROVE II: Imdusiran and VTP-300 Achieve Statistical Significance in Lowering HBsAg Levels



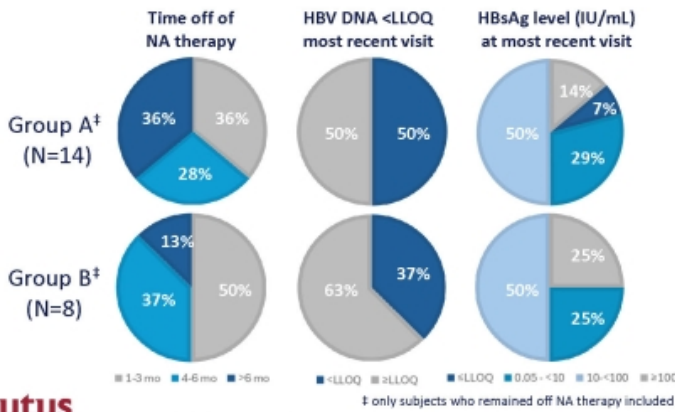
- Imdusiran led to declines of -1.8 log<sub>10</sub> by Week 26, 95% of subjects had HBsAg <100 at time of VTP-300 or placebo dosing
- More subjects maintained HBsAg thresholds of <100 IU/mL and <10 IU/mL when administered VTP-300 vs placebo
- At 24 weeks post-EOT (Week 72, N=11), there was a significant difference in HBsAg levels between groups, which may reflect the delayed effect of VTP-300 on HBsAg levels observed in other trials



Data presented at EASL 2024

# IM-PROVE II: More patients Treated with Imdusiran and VTP-300 stopped NA treatment

- 84% of patients in Group A/VTP-300 met NA discontinuation criteria and stopped treatment after W48
  - More Group A/VTP-300 subjects (50%) have maintained HBV DNA <LLOQ off NA therapy than placebo subjects (37.5%)
  - Group A/VTP-300 subjects have maintained lower HBsAg levels after NA discontinuation
    - 1 Group A/VTP-300 subject reached HBsAg <LLOQ at Week 72, another has >1.5 log<sub>10</sub> HBsAg decline between Week 60 and 68



- Imdusiran and VTP-300 was generally safe and well-tolerated when administered sequentially
  - No SAEs, Grade 3 or 4 adverse events (AEs) or treatment discontinuations due to AEs
  - Most common treatment-related AEs in 2 or more patients (all Grade 1 or 2):
    - Imdusiran: injection site-related (bruising and/or swelling in 2 subjects), ALT increased in 2 subjects
    - VTP-300: injection site-related (redness, pain and/or injection reaction in 2 subjects)



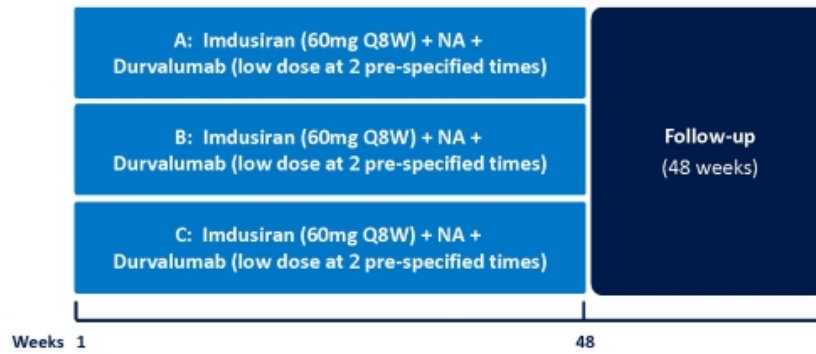
Data presented at EASL 2024

### IM-PROVE III:

## 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

Imdusiran

# Strategic Collaboration



## 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







# 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

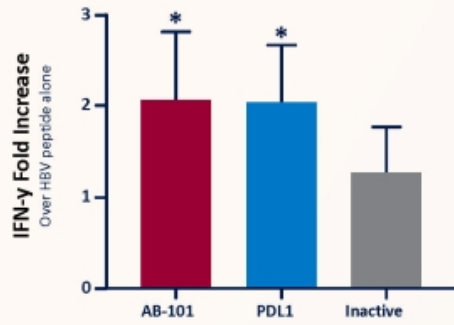
- Blocks PD-L1/PD-1 interaction at sub-nM concentrations
- Activates HBV-specific immune responses in T-cells from cHBV patients *in vitro*
- Novel MOA identified
- Demonstrates a robust checkpoint mediated *in vivo* effect
- Improves HBV-specific T- and B-cell responses *ex vivo*

Currently in a Phase 1a/1b clinical trial

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

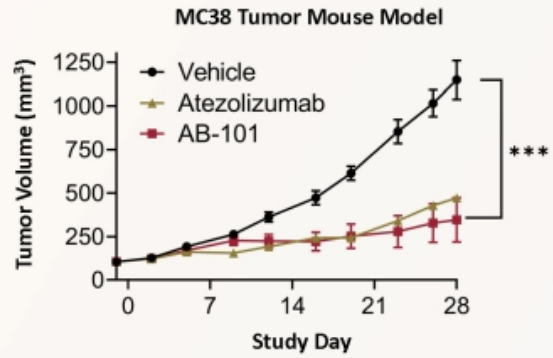
AB-101 is highly potent and activates HBV specific immune cells from chronic HBV patients

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

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

## Parts 1 & 2 – Healthy Subjects

Part 1: SAD  
(n=8/cohort – 6:2)

1A: Dose 1



1B: Dose 2



1C: Dose 3



1D: Dose 4 \*



Part 2: MAD  
(n=10/cohort – 8:2)

2A: Dose ≤ dose tested in  
Part 1; interval TBD

2B:  
Dose/interval TBD

Dosing initiated with preliminary  
data from MAD portion expected  
in 2H 2024.

Additional optional dose panels  
may be used.

## Part 3 – cHBV Patients (n=12/cohort – 10:2) Virally suppressed

3A: Dose ≤ dose tested in Part 2;  
interval TBD x 28d

3B: Dose/interval TBD x 28d

3C: Dose/interval TBD x 28d

\* 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%.

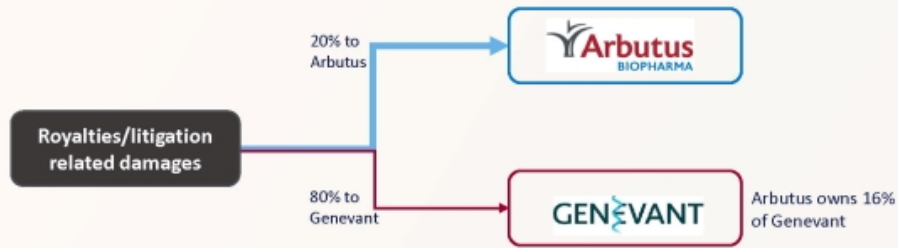
# LNP Litigation: Update

## ● 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.

# 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
IM-PROVE I Phase 2a (imdsiran + IFN): End-of-treatment data	1H ✓
IM-PROVE II Phase 2a (imdsiran + VTP-300): End-of-treatment data	1H ✓
IM-PROVE III (imdsiran + durvalumab): Initiate Phase 2a clinical trial	1H ✓
AB-101-001: Preliminary data from healthy subject cohorts	1H ✓
AB-729-202 Phase 2a (imdsiran + 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



Thank You

