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): January 8, 2024

Arbutus Biopharma Corporation
(Exact name of registrant as specified in its charter)

British Columbia, Canada	**001-34949**	**98-0597776**
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(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 2.02. Results of Operations and Financial Condition.

On January 8, 2024, Arbutus Biopharma Corporation (the "Company") issued a press release (the "Press Release") announcing its 2024 corporate objectives and provided certain estimated and projected financial information, including its estimated cash, cash equivalents and investments as of December 31, 2023. The amounts included in the Press Release are preliminary, have not been audited and are subject to change upon completion of the Company's audited financial statements for the year ended December 31, 2023. Additional information and disclosures would be required for a more complete understanding of the Company's financial position and results of operations as of December 31, 2023. A copy of the press release is filed herewith as Exhibit 99.1 and is incorporated by reference herein.

On January 8, 2024, the Company posted an updated corporate presentation on its website at www.arbutusbio.com (the "Corporate Presentation"), which included the Company's estimated cash, cash equivalents and investments as of December 31, 2023. A copy of the Corporate Presentation is filed herewith as Exhibit 99.2 and is incorporated by reference herein.

Item 8.01. Other Events.

On January 8, 2024, the Company issued the Press Release, a copy of which is filed herewith as Exhibit 99.1 hereto and is incorporated by reference herein.

A copy of the Corporate Presentation is filed herewith as Exhibit 99.2 hereto and is incorporated by reference herein.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Description
99.1	Press release dated January 8, 2024
99.2	Corporate Presentation January 8, 2024
104	Cover page interactive data file (formatted as inline XBRL).

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: January 8, 2024

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

EXHIBIT 99.1

Arbutus Announces 2024 Corporate Objectives and Provides Financial Update

Additional data from two on-going Phase 2a clinical trials evaluating imdusiran, our RNAi therapeutic, as a cornerstone therapy in combination with other compounds expected in 2024

Initiation of a third Phase 2a clinical trial evaluating imdusiran and an approved PD-L1 monoclonal antibody expected in 1H 2024

Preliminary data from a Phase 1a/1b clinical trial with AB-101, our oral PD-L1 inhibitor, expected in 1H 2024

Claim construction hearing for Moderna LNP litigation scheduled for February 8, 2024

Strong financial position; cash runway into Q1 2026

WARMINSTER, Pa., Jan. 08, 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 cure for people with chronic hepatitis B virus (cHBV) infection, today announced its 2024 business outlook including its clinical development milestones to advance its HBV pipeline and a financial update.

"As we enter 2024, our strong balance sheet and anticipated clinical trial readouts position us well towards achieving our mission of developing a functional cure for patients with cHBV," said Michael J. McElhaugh, Interim President and Chief Executive Officer of Arbutus Biopharma. "Our Phase 2a program for imdusiran, our RNAi therapeutic, consisting of three separate trials, reinforces the potential role of imdusiran as a cornerstone in a treatment regimen to functionally cure patients with cHBV. Additionally, AB-101, our oral PD-L1 inhibitor, continues to progress and we look forward to preliminary data from the ongoing Phase 1a/1b clinical trial. We remain committed to continuing discovery research in HBV and we are confident that we have the talent and resources to execute our mission."

2024 Clinical Development Milestones

Imdusiran (AB-729, RNAi Therapeutic)

- AB-729-201 is a Phase 2a clinical trial that is evaluating the safety, tolerability and antiviral activity of the combination of imdusiran, nucleos(t)ide analogue (NA) therapy and pegylated interferon alfa-2a (IFN) in patients with cHBV. Preliminary data presented at the EASL Congress in June 2023 suggest that the addition of IFN to imdusiran was generally well-tolerated and appears to result in continued HBsAg declines in some patients. Arbutus plans to announce end-of-treatment data from this trial in the first half of 2024.
- AB-729-202 is a Phase 2a clinical trial that is evaluating the safety and immunogenicity of imdusiran, NA therapy and Barinthus Bio's (formerly Vaccitech plc) VTP-300, an HBV antigen-specific immunotherapy. Preliminary data presented at AASLD – The Liver Meeting in November 2023 showed that the combination of imdusiran and VTP-300 provided a meaningful reduction of HBsAg levels that are maintained well below baseline. In addition, a subset of patients given imdusiran and then VTP-300 showed early signs of immune activation. Arbutus plans to announce end-of-treatment data from this portion of the trial in the first half of 2024.
- AB-729-202 was amended to include an additional cohort of 20 patients who will receive imdusiran plus NA therapy for 24 weeks followed by VTP-300 plus up to two low doses of nivolumab, an approved anti-PD-1 monoclonal antibody. Enrollment is complete in this additional cohort with preliminary data expected in the second half of 2024.
- AB-729-203 is a Phase 2a clinical trial that will initiate in the first half of 2024 and will evaluate the safety, tolerability and antiviral activity of intermittent low doses of durvalumab, an approved PD-L1 monoclonal antibody in combination with imdusiran and NA therapy.

AB-101 (Oral PD-L1 Inhibitor)

- AB-101-001 is a Phase 1a/1b double-blind, randomized, placebo-controlled clinical trial designed to investigate the safety, tolerability, pharmacokinetics (PK), and pharmacodynamics (PD) of single- and multiple-ascending oral doses of AB-101 for up to 28 days in healthy subjects and patients with cHBV. AB-101 continues to be evaluated at higher single doses in healthy subjects in part one of the Phase 1a/1b clinical trial, which was initiated in September 2023. Arbutus expects to report preliminary data from the healthy subject portion of this clinical trial, including target engagement and receptor occupancy data, in the first half of 2024.

LNP Litigation Update:

- Arbutus will continue to protect and defend its intellectual property, which is the subject of the on-going lawsuits against Moderna and Pfizer/BioNTech. The Company is seeking fair compensation for Moderna's and Pfizer/BioNTech's use of its patented LNP technology that was developed with great effort and at a great expense, without which Moderna and Pfizer/BioNTech's COVID-19 vaccines would not have been successful. With respect to the Moderna lawsuit, fact discovery is currently on-going with the claim construction hearing scheduled for February 8, 2024. According to the Court Scheduling Order, which was issued on March 21, 2023, the court is expected to issue its claim construction order within 60 days of conclusion of the claim construction hearing. Expert testimony and depositions will then follow. A trial date has not been set, but the trial is expected to commence in the first half of 2025. The lawsuit against Pfizer/BioNTech is ongoing and a date for a claim construction hearing has not been set.

Financial Update:

- The Company had cash, cash equivalents and investments in marketable securities totaling approximately $132 million as of December 31, 2023.
- The Company expects to significantly reduce its net cash burn in 2024 when compared to 2023. The Company expects net cash burn in 2024 to range from $63 to $67 million versus a 2023 net cash burn of approximately $85 million. The Company believes its cash, cash equivalents and investments in marketable securities of approximately $132 million as of December 31, 2023, are sufficient to fund its operations into the first quarter of 2026.
- The preliminary cash, cash equivalents and investments as of December 31, 2023 and its preliminary 2023 net cash burn were calculated prior to the completion of an audit by Arbutus' independent registered public accounting firm and are therefore subject to adjustment.

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 AB-101

AB-101 is our oral PD-L1 inhibitor candidate that we believe will allow for controlled checkpoint blockade while minimizing the systemic safety issues typically seen with checkpoint antibody therapies. Immune checkpoints such as PD-1/PD-L1 play an important role in the induction and maintenance of immune tolerance and in T-cell activation. Preclinical data generated thus far indicates that AB-101 mediates re-activation of exhausted HBV-specific T-cells from cHBV patients. We believe AB-101, when used in combination with other approved and investigational agents, could potentially lead to a functional cure in patients chronically infected with HBV. AB-101 is currently being evaluated in a Phase 1a/1b clinical trial.

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 290 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 two 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.

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 our future development plans for our product candidates; our program updates; our belief that checkpoint inhibitors may play a key role in antiviral immune tolerance in cHBV; the expected cost, timing and results of our clinical development plans and clinical trials with respect to our product candidates; our expectations with respect to clinical trial design and the release of data from our clinical trials and the expected timing thereof; our expectations and goals for our collaborations with third parties and any potential benefits related thereto; the potential for our product candidates to achieve success in clinical trials; our plans with respect to the ongoing patent litigation matters; and our expected financial condition, including the anticipated duration of cash runways, our expectations regarding our 2024 cash burn and the timing regarding our needs for additional capital.

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, including uncertainties and contingencies related to the ongoing patent litigation matters.

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; uncertainties associated with litigation generally and patent litigation specifically; it may take considerable time and expense to resolve the clinical hold that has been placed on AB-101 by the FDA, and no assurance can be given that the FDA will remove the clinical hold; Arbutus and its collaborators may never realize the expected benefits of the collaborations; and market shifts may require a change in strategic focus; Arbutus' plans to reduce its net cash burn may not materially extend the cash runway and may create a distraction or uncertainty that may adversely affect its operating results, business, or investor perceptions; and risks related to the sufficiency of Arbutus' cash resources and its ability to obtain adequate financing in the future for its foreseeable and unforeseeable operating expenses and capital expenditures.

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 and at 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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Arbutus BIOPHARMA

Corporate Presentation

NASDAQ: ABUS

www.arbutusbio.com

January 8, 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 in >20% functional cure rate.

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

Investment Highlights

 **Indications with significant unmet medical need & large market opportunities**	 **Team with virology expertise and proven track record**	 **Portfolio of internally discovered assets with distinct MOAs**	 **Lead HBV compound – imdusiran (AB-729) RNAi therapeutic in multiple Phase 2a combination clinical trials**	 **Strong financial position**	 **Patented LNP technology**
Focused on developing a functional cure for HBV	Discovered, developed & commercialized multiple drugs	RNAi therapeutic PD-L1 inhibitor	Data shows imdusiran is generally safe and well-tolerated and has shown meaningful suppression of HBsAg while on- or off-treatment	Cash runway into Q1 2026	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

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

Pipeline

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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

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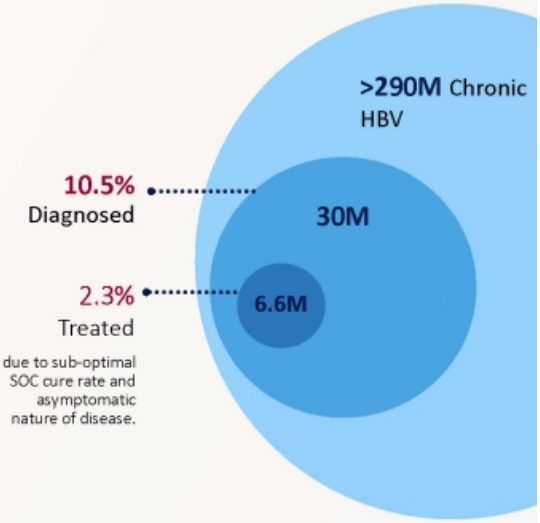
HBsAg: HBV Surface Antigen | **HCC:** Hepatocellular carcinoma

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.



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

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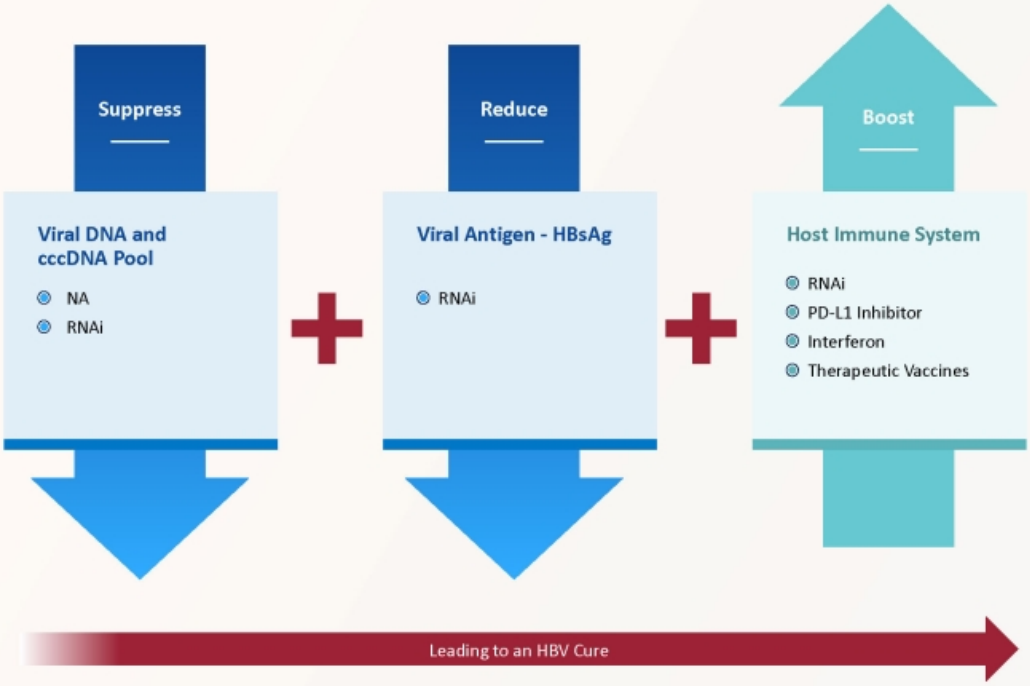
SOC: Standard of Care

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.

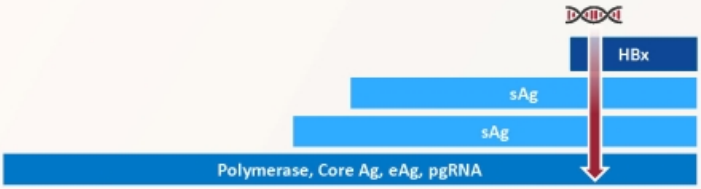


Imdusiran

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



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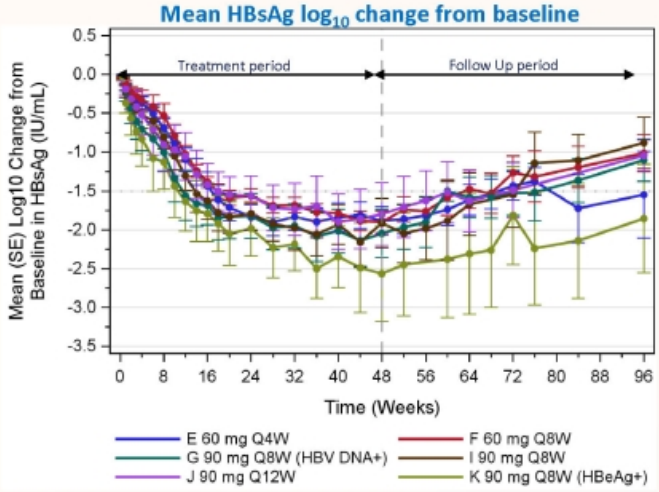
AB-729-001: Comparable mean HBsAg declines were observed in all Cohorts

Mean HBsAg log_{10} change from baseline



Mean HBsAg log_{10} IU/mL change from baseline at key timepoints

Visit	HBV DNA-					HBV DNA+
	Cohort E 60mg Q4W HBV DNA- (N=7)	Cohort F 60mg Q8W HBV DNA- (N=7)	Cohort I 90mg Q8W HBV DNA- (N=6)	Cohort J 90mg Q12W HBV DNA- (N=7)	Cohort K 90mg Q8W HBV DNA-, HBeAg+ only (N=7)	Cohort G 90mg Q8W + TDF (N=7)
Baseline	3.51 (0.20)	3.53 (0.17)	3.36 (0.23)	3.37 (0.28)	3.23 (0.14)	3.14 (0.14)
Treatment Week 12	-1.10 (0.15)	-1.02 (0.11)	-1.30 (0.19)	-1.06 (0.31)	-1.63 (0.39)	-1.56 (0.32)
Treatment Week 24	-1.84 (0.16)	-1.57 (0.09)	-1.79 (0.22)	-1.56 (0.25)	-1.99 (0.35)	-1.82 (0.29)
Treatment Week 48	-1.89 (0.18)	-1.90 (0.14)	-1.91 (0.32)	-1.80 (0.41)	-2.57 (0.61)	-2.05 (0.31)
Follow Up Week 12	-1.74 (0.20)	-1.59 (0.23)	-1.42 (0.26)	-1.52 (0.40)	-2.38 (0.75)	-1.50 (0.13)
Follow Up Week 24	-1.43 (0.18)	-1.26 (0.21)	-1.37 (0.39)	-1.49 (0.35)	-1.82 (0.63)	-1.53 (0.29)
Follow Up Week 48	-1.55 (0.56)	-1.01 (0.24)	-0.88 (0.33)	-1.04 (0.20)	-1.86 (0.70)	-1.10 (0.27)

Data shown are for a minimum of 5 subjects/timepoint. Last dose of AB-729: Cohort E, Week 44; Cohorts F, I, G, K: Week 40; Cohort J: Week 36.

- All Cohorts achieved at least a -1.8 log_{10} decline in mean HBsAg at the end of the treatment period (Week 48)
- There were no significant differences in mean HBsAg declines between the 60 mg and 90 mg doses or between different dosing intervals
- Mean HBsAg levels remained below baseline values at Week 48 Follow Up
- AB-729 was well-tolerated at all dose levels and intervals, with no discontinuations due to AEs or treatment-related Grade 3 or 4 AEs

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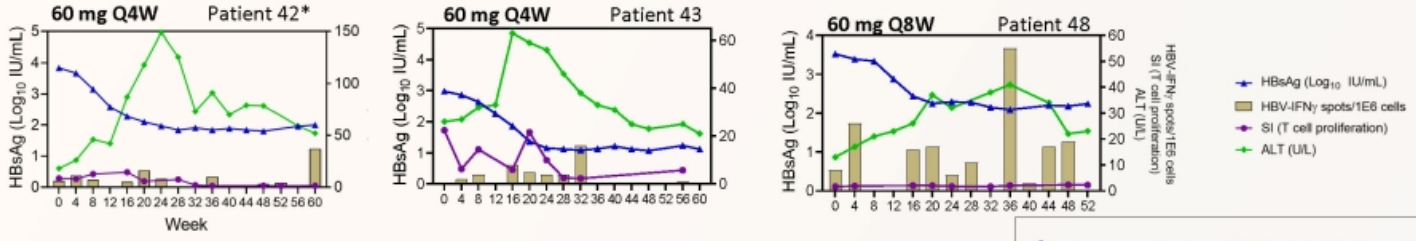
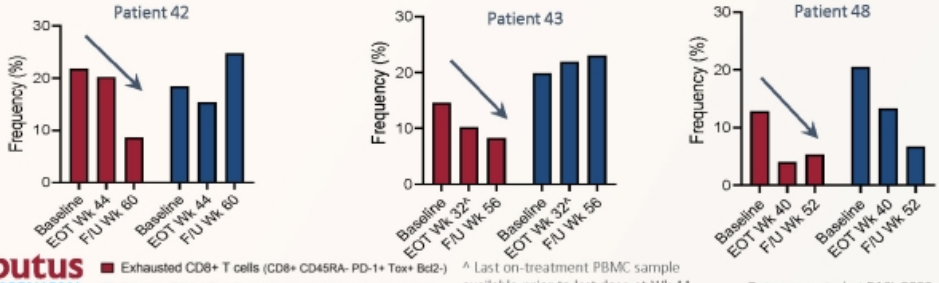
Data presented at EASL 2022, AASLD 2022, GHS 2023

AB-729-001: Treatment with Imdusiran Reactivates HBV Specific Immunity in Some Patients

Imdusiran Increased HBV-Specific T-Cell Activation



Imdusiran Decreased Exhausted T-Cells



- Upregulation of HBV-specific T-cell activation markers observed in all 7 patients assessed to date
- Two profiles of HBV-specific T cell IFN-γ responses observed
  - Elevation between Wk 16-28 which coincides with nadir of HBsAg reduction
  - *Elevation after imdusiran dosing completed, between Wk 48-60

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Exhausted CD8+ T cells (CD8+ CD45RA- PD-1+ Tox+ Bcl2-)

Effector CD8+ T cells (CD8+ CD45RA- PD-1+ Tox- Bcl2+)

^ Last on-treatment PBMC sample available prior to last dose at Wk 44

Data presented at EASL 2022

AB-729-001 Clinical Trial Key Takeaways

Imdusiran was generally safe and well-tolerated after completing dosing in 41 patients

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

Discontinuation of both imdusiran and NA-therapy results in sustained reduction in HBsAg and HBV DNA in the majority of patients

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

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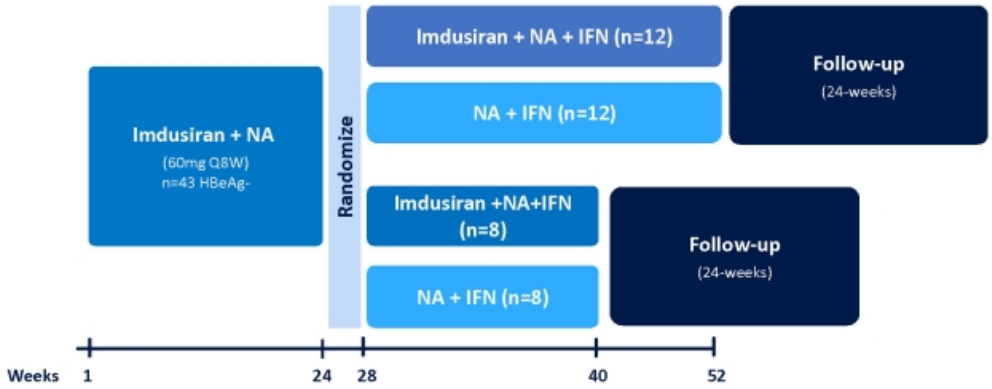
AB-729-201:

Phase 2a POC Clinical Trial

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

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

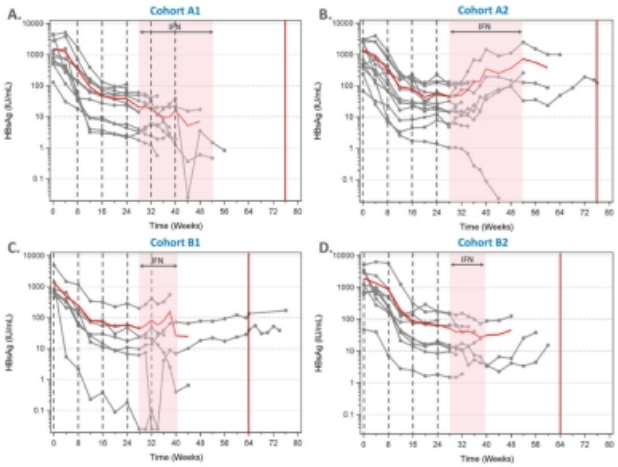
POC: Proof of Concept

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

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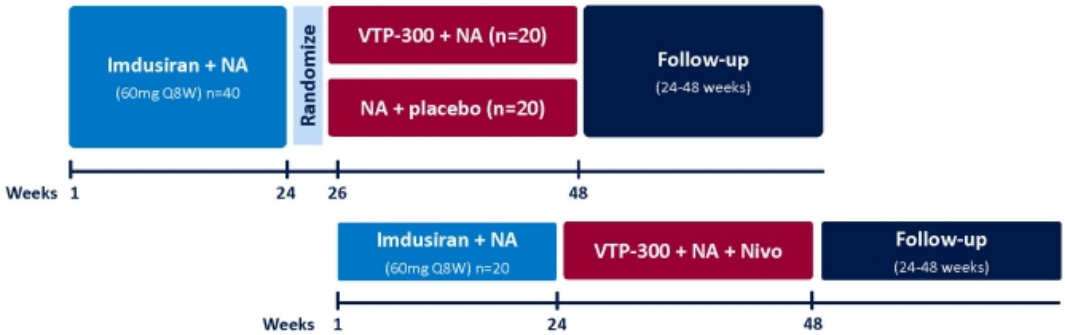
Data presented at EASL 2023

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

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

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

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

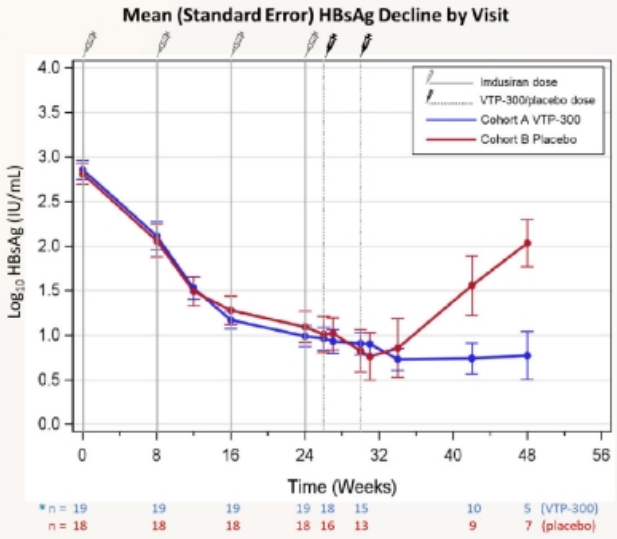
Mean HBsAg Change from Baseline and Key Milestones

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



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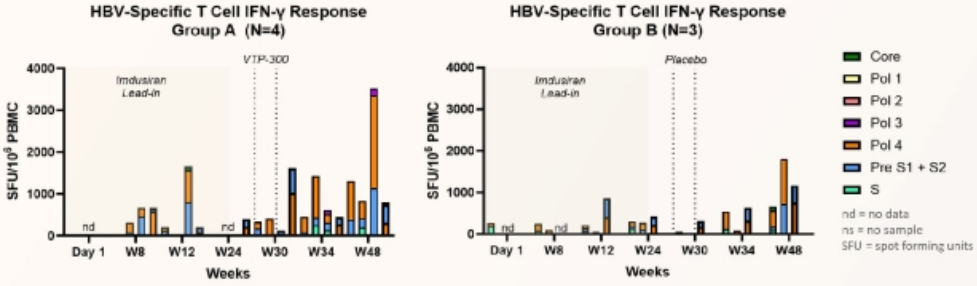
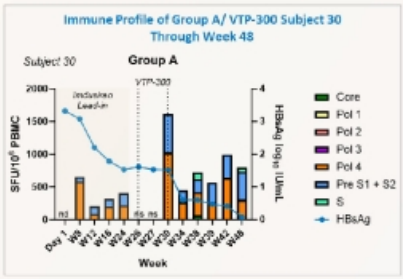
Data presented at AASLD 2023

AB-729-202: HBV-Specific T Cell Responses and Soluble Immune Biomarkers increased after VTP-300 dosing





Preliminary results:

- Elevations in HBV-specific T cell IFN-γ production were observed during imdusiran lead-in and after vaccination for n=7 patients profiled thus far
- Enhanced HBV-specific T cell responses were observed against HBsAg, PreS1/S2 peptides in VTP-300 treated patients (n=4)
- Transient increases in other plasma immune biomarkers were also observed during imdusiran lead-in and vaccination period

- Patient 30 (Group A/VTP-300) experienced HBsAg decline and enhanced IFN-γ production (via ELISpot) after VTP-300 through Week 48

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Data presented at AASLD 2023

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

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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

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

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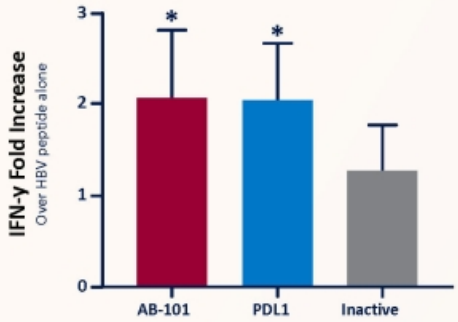
PD-1: Programmed death ligand protein | **Abs:** Antibodies

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

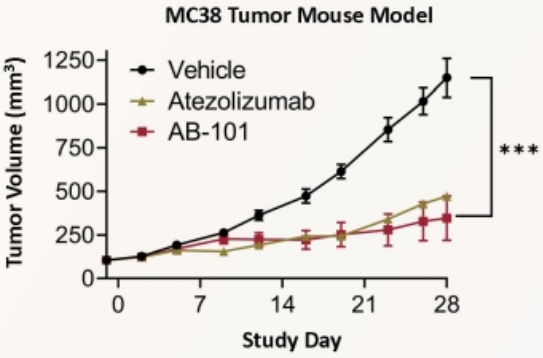
AB-101 is highly potent and activates HBV specific immune cells from chronic HBV patients

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

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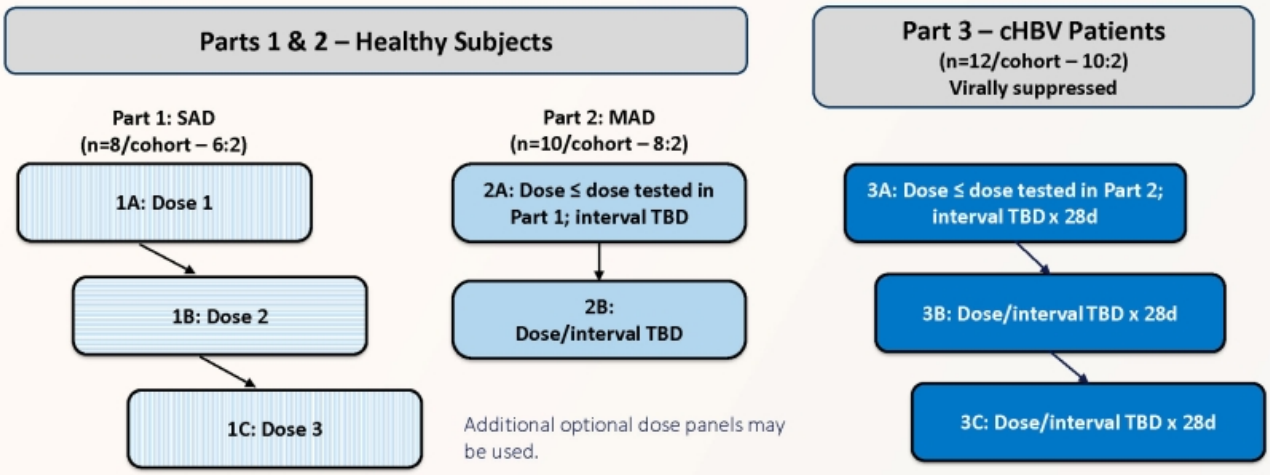
PBMC: Peripheral Blood Mononuclear Cells

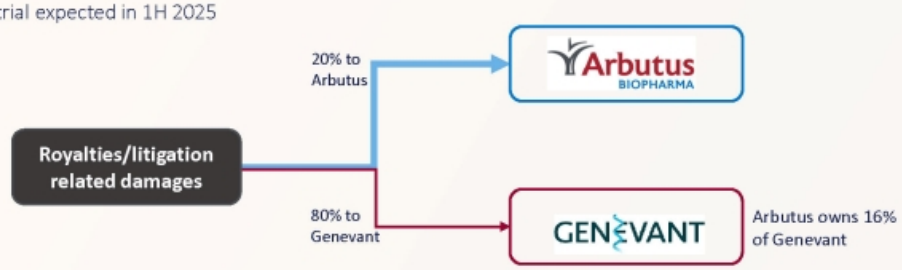
AB-101-001: Phase 1a/1b Clinical Trial with AB-101



Preliminary data in healthy subjects, including target engagement and receptor occupancy expected in 1H 2024

LNP litigation: Update

- **Moderna***
  - Fact discovery on-going
  - Markman Hearing set for February 8, 2024 – court will hear arguments on claim construction and expected to issue its order within 60 days of conclusion of the hearing
  - Next Steps
    - Expert testimony / depositions
    - Trial date not set; trial expected in 1H 2025
- **Pfizer**
  - Lawsuit ongoing
  - Date for claim construction hearing has not been set



*Above referenced dates/timelines are included in the 3/21/2023 Court Scheduling Order (as amended) and are subject to change.

2024 Key Milestones

Cash balance* of $132M as of December 31, 2023, cash runway into Q1 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): Preliminary data	2H

*Preliminary cash balance (which includes cash equivalents and investments) and cash burn were calculated prior to the completion of an audit and are subject to adjustment

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Thank You