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): November 15, 2024

BARINTHUS BIOTHERAPEUTICS PLC

(Exact name of registrant as specified in its charter)

England and Wales	**001-40367**	**Not Applicable**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

Barinthus Biotherapeutics plc
Unit 6-10, Zeus Building Rutherford Avenue,
Harwell, Didcot, OX11 0DF
United Kingdom
(Address of principal executive offices, including zip code)

+44 (0) 1865 818 808
(Registrant's telephone number, including area code)

Not Applicable
(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	Trade Symbol(s)	Name of each exchange on which registered
American Depositary Shares Ordinary shares, nominal value £0.000025 per share*	BRNS	The Nasdaq Global Market

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. ☐

* American Depositary Shares may be evidenced by American Depositary Receipts. Each American Depositary Share represents one (1) ordinary share. Not for trading, but only in connection with the listing of the American Depositary Shares on The Nasdaq Global Market. The American Depositary Shares represent the right to receive ordinary shares and are being registered under the Securities Act of 1933, as amended, pursuant to a separate Registration Statement on Form F-6. Accordingly, the American Depositary Shares are exempt from the operation of Section 12(a) of the Securities Exchange Act of 1934, as amended, pursuant to Rule 12a-8.

Item 7.01 Regulation FD Disclosure.

On November 15, 2024, Barinthus Biotherapeutics plc (the "Company") issued a press release titled "Arbutus and Barinthus Bio Announce New Data from the IM-PROVE II Trial Showing that the Addition of Nivolumab Increased Rates of HBsAg Loss in People with Chronic Hepatitis B." A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

On November 15, 2024, the Company issued a press release titled "Barinthus Bio Announces Results From Ongoing Phase 2b Chronic Hepatitis B Trial, Including Achievement of Functional Cure and HBsAb Seroconversion" A copy of the press release is furnished as Exhibit 99.2 to this Current Report on Form 8-K.

On November 15, 2024, the Company updated its corporate presentation for use in meetings with investors, analysts and others. A copy of this presentation is furnished as Exhibit 99.3 to this Current Report on Form 8-K. The Company undertakes no obligation to update, supplement or amend the presentation.

The information in Item 7.01 of this Current Report on Form 8-K (including Exhibits 99.1, 99.2 and 99.3) is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any filing by the Company under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 8.01. Other Events.

On November 15, 2024, the Company announced the datasets associated with updated data from the ongoing IM-PROVE II and HBV003 trial presented at the American Association for the Study of Liver Diseases (AASLD) – The Liver Meeting® 2024.

New Data from the IM-PROVE II trial

The new data are from an additional cohort of participants (Group C) who received repeat doses of imdusiran, Arbutus' RNAi therapeutic, followed by Barinthus Bio's T-cell stimulating immunotherapeutic, VTP-300, with or without low-dose nivolumab, an anti-PD-1 monoclonal antibody. The data indicated that Group C participants receiving nivolumab experienced increased rates of HBsAg loss (defined as HBsAg <LLOQ [0.05 IU/mL]) compared to Group A and B participants who received imdusiran and VTP-300 or placebo. The data from Groups A and B were previously presented at the European Association for the Study of the Liver (EASL) Congress in June 2024.

Group C enrolled a total of 22 non-cirrhotic, virally suppressed cHBV participants with HBsAg ≥100 to <5,000 IU/mL at screening who were on stable nucleos(t)ide analogue (NUC) therapy for ≥12 months. Thirteen of these participants were eligible to receive low-dose nivolumab and nine participants were not eligible, based on the trial criteria.

The preliminary data from Group C included data to Week 48 (20/22 participants) and showed the following:

- Imdusiran lead-in treatment led to a mean decline from baseline in HBsAg consistent with data from Groups A and B.
- Significantly greater mean declines in HBsAg levels ($p < 0.017$) were seen in Group C participants, who received imdusiran and VTP-300 with nivolumab, at Week 48 compared with Groups A and B and Group C without nivolumab.
- 23% of participants (3/13) in the group receiving imdusiran, VTP-300 and low-dose nivolumab achieved HBsAg loss by Week 48.
- Increases in soluble immune biomarkers associated with immune checkpoint proteins, inflammation, and T-cell activation were observed in participants who had HBsAg loss at any point through Week 48.
- The Group C treatment regimen with nivolumab was generally well tolerated and did not result in any immune-related adverse events.

Interim HBV003 data

The HBV003 study (NCT05343481) is fully recruited with a total of 121 participants, including 69 participants who had entered the trial with HBsAg levels below 200 IU/mL. The study is evaluating different dosing regimens of VTP-300 in combination with low-dose nivolumab, an anti-PD-1 monoclonal antibody. The new data showed that as of data cut off, eight participants were reported with complete HBsAg loss (defined as HBsAg levels below the lower limit of quantitation [<LLOQ, 0.05 IU/mL]) and two participants met the criteria for functional cure.

Uniquely, two of the eight participants with HBsAg loss, became positive for anti-hepatitis B antibodies (HBsAb) that they did not have before, including one of those who met functional cure criteria. The data from this ongoing study indicate that stronger responses may happen in participants treated with the combination of VTP-300 and a low dose of the anti-PD1 antibody nivolumab (Groups 1 and 2).

40 participants, with HBsAg below 200 IU/mL at screening, who had reached Day 169 were assessed for nucleos(t)ide analogue (NUC) discontinuation. The data showed the following:

- 24 were eligible for NUC discontinuation.
- Eight achieved HBsAg loss at any time, two of whom achieved it after Day 169.
- Nine participants chose to discontinue NUCs.
    - 66% (n=6/9) remained off NUC therapy, five for more than six months.
        - Two of these six have met the criteria for functional cure.
        - Two of these six seroconverted to HBsAb positivity.
        - Follow up is continuing with the remaining participants to assess if they will meet functional cure criteria.
- Durable HBsAg declines were observed in all treatment groups, consistent with data previously presented at the European Association for the Study of the Liver (EASL) Congress, in June 2024.
- Preliminary safety data indicate that VTP-300 in combination with low-dose nivolumab was generally well tolerated with no treatment-related SAEs observed or reported as of data cut off.

Functional cure is defined by AASLD as sustained HBsAg loss and hepatitis B virus DNA <LLOQ for 6 months off-treatment. Data cut off was September 30, 2024, for lab data and October 8, 2024, for clinical data.

Forward Looking Statements
This Current Report on Form 8-K contains forward-looking statements regarding Barinthus Bio within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, which can generally be identified as such by use of the words “may,” “will,” “plan,” “forward,” “encouraging,” “believe,” “potential,” and similar expressions, although not all forward-looking statements contain these identifying words. These forward-looking statements include, without limitation, express or implied statements regarding our product development activities and clinical trials, including timing for readouts of any interim data or next steps for any of our programs, including VTP-300 and the HBV003 trial, the timing for readouts for the IM-PROVE II trial of our collaboration partner, Arbutus, the tolerability or potential benefits of VTP-300 or imdusiran, including the combination with nivolumab, and our ability to develop and advance our current and future product candidates and programs. Any forward-looking statements in this Current Report on Form 8-K are based on our management’s current expectations and beliefs and are subject to numerous risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this Current Report on Form 8-K, including, without limitation, risks and uncertainties related to the success, cost and timing of our pipeline development activities and planned and ongoing clinical trials, including the risk that the timing for preliminary, interim or final data or initiation of our clinical trials may be delayed, the risk that interim or topline data may not reflect final data or results, our ability to execute on our strategy, regulatory developments, the risk that we may not achieve the anticipated benefits of our pipeline prioritization and corporate restructuring, our ability to fund our operations and access capital, our cash runway, including the risk that our estimate of our cash runway may be incorrect, global economic uncertainty, including disruptions in the banking industry, the conflict in Ukraine, the conflict in Israel and Gaza, and other risks identified in our filings with the Securities and Exchange Commission, including our Annual Report on Form 10-K for the year ended December 31, 2023, our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. We caution you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made. We expressly disclaim any obligation to publicly update or revise any such statements to reflect any change in expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

99.1	Press Release dated November 15, 2024.
99.2	Press Release dated November 15, 2024.
99.3	Corporate Deck dated November 15, 2024.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

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.

Barinthus Biotherapeutics plc

Date: November 15, 2024

By: /s/ William Enright
William Enright
Chief Executive Officer

Arbutus and Barinthus Bio Announce New Data from the IM-PROVE II Trial Showing that the Addition of Nivolumab Increased Rates of HBsAg Loss in People with Chronic Hepatitis B

- *Significantly greater mean declines in HBsAg levels (p <0.017) were seen in those receiving imdusiran, VTP-300 and low-dose nivolumab compared to other cohorts assessed previously*
- *23% of participants receiving imdusiran, VTP-300 and low-dose nivolumab reached HBsAg loss by Week 48*

WARMINSTER, Pa. and OXFORD, United Kingdom Nov. 15, 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 infection, and Barinthus Biotherapeutics plc (NASDAQ: BRNS), a clinical-stage biopharmaceutical company developing novel immunotherapeutic candidates that guide T cells to control disease, today announced new preliminary data from the Phase 2a IM-PROVE II clinical trial (AB-729-202) of people with chronic hepatitis B virus (cHBV) at the American Association for the Study of Liver Diseases (AASLD) – The Liver Meeting® 2024.

The new data are from an additional cohort of participants (Group C) who received repeat doses of imdusiran, Arbutus' RNAi therapeutic, followed by Barinthus Bio's T-cell stimulating immunotherapeutic, VTP-300, with or without low-dose nivolumab, an anti-PD-1 monoclonal antibody. The data indicated that Group C participants receiving nivolumab experienced increased rates of HBsAg loss (defined as HBsAg <LLOQ [0.05 IU/mL]) compared to Group A and B participants who received imdusiran and VTP-300 or placebo. The data from Groups A and B were previously presented at the European Association for the Study of the Liver (EASL) Congress in June 2024.

Group C enrolled a total of 22 non-cirrhotic, virally suppressed cHBV participants with HBsAg ≥100 to <5,000 IU/mL at screening who were on stable nucleos(t)ide analogue (NUC) therapy for ≥12 months. Thirteen of these participants were eligible to receive low-dose nivolumab and nine participants were not eligible, based on the trial criteria.

The preliminary data from Group C included data to Week 48 (20/22 participants) and showed the following:

- Imdusiran lead-in treatment led to a mean decline from baseline in HBsAg consistent with data from Groups A and B.
- Significantly greater mean declines in HBsAg levels (p <0.017) were seen in Group C participants, who received imdusiran and VTP-300 with nivolumab, at Week 48 compared with Groups A and B and Group C without nivolumab.
- 23% of participants (3/13) in the group receiving imdusiran, VTP-300 and low-dose nivolumab achieved HBsAg loss by Week 48.
- Increases in soluble immune biomarkers associated with immune checkpoint proteins, inflammation, and T-cell activation were observed in participants who had HBsAg loss at any point through Week 48.
- The Group C treatment regimen with nivolumab was generally well tolerated and did not result in any immune-related adverse events.

“These data demonstrated the impact of the combination of an immune stimulant such as VTP-300 and a low dose of the checkpoint inhibitor nivolumab in helping participants reach HBsAg loss,” said Dr. Leon Hooftman, Chief Medical Officer of Barinthus Bio. "While these are early data, the imdusiran, VTP-300 and low-dose nivolumab regimen is promising and is consistent with the data we are seeing from our HBV003 trial of VTP-300 plus low-dose nivolumab.”

“These data continue to support our belief that lowering surface antigen is key to promoting HBV-specific immune reawakening,” commented Dr. Karen Sims, Chief Medical Officer of Arbutus Biopharma. “In this trial, imdusiran provided meaningful reductions in HBsAg prior to treatment with the immunomodulatory agents, VTP-300 and low dose nivolumab, leading to improved response rates with this combination.”

The poster from the presentation at AASLD 2024 can be accessed through the Barinthus Bio website at: https://investors.barinthusbio.com/events-presentations

IM-PROVE II Trial Details
The IM-PROVE II Phase 2a clinical trial initially enrolled 40 non-cirrhotic, virally suppressed cHBV participants that were on stable NUC therapy in Groups A and B. These participants received imdusiran (60mg every 8 weeks) for 24 weeks with on-going NUC therapy and were then randomized to receive either VTP-300 (Group A) or placebo (Group B) at Weeks 26 and 30 (and conditionally at Week 38 if they experienced a >0.5 log10 decline in HBsAg between Weeks 26 and 34).

This trial was amended to include an additional cohort (Group C) which enrolled 22 participants, 13 of which were eligible to receive imdusiran (60mg every 8 weeks) for 24 weeks with ongoing NUC therapy followed by VTP-300 at Weeks 26 and 30 plus up to two low doses of nivolumab (0.3 mg/kg), an approved PD-1 monoclonal antibody at Week 30. The remaining 9 participants received the imdusiran/NUC/VTP-300 regimen without nivolumab. Participants could receive a second dose of VTP-300 ± low-dose nivolumab at Week 38 if their HBsAg was ≥10 IU/mL at Week 34.

Upon completion of the treatment period at Week 48, all participants who met certain criteria could discontinue NUC therapy and be followed for an additional 48 weeks. Those who did not meet the criteria continued on NUC therapy for an additional 24 weeks of follow-up.

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 VTP-300
VTP-300 is an immunotherapeutic candidate consisting of an initial dose using the ChAdOx vector and a secondary dose(s) using the MVA vector, both encoding multiple HBsAg, including full-length surface, modified polymerase, and core antigens. VTP-300 is the first antigen-specific immunotherapy that has been shown to induce sustained reductions in HBsAg. Barinthus Bio is studying VTP-300 in combination with other agents, including siRNA and low-dose anti-PD-1 antibodies, to control the infection, and counterbalance the immune suppression and T cell exhaustion in the liver caused by chronic HBV infection.

About Arbutus

Arbutus Biopharma Corporation (Nasdaq: ABUS) is a clinical-stage biopharmaceutical company leveraging its extensive virology expertise to develop novel therapeutics with distinct mechanisms of action, which can potentially be combined to provide a functional cure for patients with chronic hepatitis B virus (cHBV). Arbutus believes the key to success in developing a functional cure involves suppressing HBV DNA, reducing surface antigen, and boosting HBV-specific immune responses. Arbutus' 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.

About Barinthus Bio

Barinthus Biotherapeutics (Nasdaq: BRNS) is a clinical-stage biopharmaceutical company developing novel immunotherapeutic candidates designed to guide the immune system to overcome chronic infectious diseases and autoimmunity. Helping people living with serious diseases and their families is the guiding principle at the heart of Barinthus Bio. With a focused pipeline built around its proprietary platform technologies, Barinthus Bio is advancing immunotherapeutic product candidates in infectious diseases and autoimmunity, including: VTP-300, that utilizing its ChAdOx/MVA platform designed as a potential component of a functional cure for chronic HBV infection and VTP-1000, utilizing our SNAP-Tolerance Immunotherapy (SNAP-TI) platform and is designed to treat people with celiac disease. Barinthus Bio is also conducting a Phase 1 clinical trial for VTP-850, a second-generation immunotherapeutic candidate designed to treat recurrent prostate cancer. Barinthus Bio's differentiated technology platforms and therapeutic approach, coupled with deep scientific expertise and focus on clinical development, uniquely positions the company to navigate towards delivering treatments that improve the lives of people with chronic infectious diseases and autoimmunity. For more information, visit www.barinthusbio.com.

Arbutus 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 Arbutus' future development plans for its product candidates; the expected cost, timing and results of its clinical development plans and clinical trials with respect to Arbutus' product candidates; Arbutus' expectations with respect to the release of data from its clinical trials and the expected timing thereof; Arbutus' expectations and goals for its collaborations with third parties and any potential benefits related thereto; and the potential for Arbutus' 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, including uncertainties and contingencies related to 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; Arbutus may not realize the anticipated benefits from its recent organizational changes; Arbutus may incur additional unexpected expenses in connection with the organizational changes; Arbutus may experience additional employee turnover as a result of the organizational changes; uncertainties associated with litigation generally and patent litigation specifically; and Arbutus and its collaborators may never realize the expected benefits of the collaborations; and 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 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.

Barinthus Bio's Forward Looking Statements

This press release contains forward-looking statements regarding Barinthus Bio within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, which can generally be identified as such by use of the words "may," "will," "plan," "forward," "encouraging," "believe," "potential," "expect," and similar expressions, although not all forward-looking statements contain these identifying words. These forward-looking statements include, without limitation, express or implied statements regarding our future expectations, plans and prospects, including our product development activities and clinical trials, including timing for readouts of any preliminary, interim or final data or next steps for any of our programs, and our ability to develop and advance our current and future product candidates and programs. Any forward-looking statements in this press release are based on our management's current expectations and beliefs and are subject to numerous risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this press release, including, without limitation, risks and uncertainties related to the success, cost and timing of our pipeline development activities and planned and ongoing clinical trials, including the risk that the timing for preliminary, interim or final data or initiation of our clinical trials may be delayed, the risk that interim or topline data may not reflect final data or results, our ability to execute on our strategy, regulatory developments, the risk that we may not achieve the anticipated benefits of our pipeline prioritization and corporate restructuring, our ability to fund our operations and access capital, our cash runway, including the risk that our estimate of our cash runway may be incorrect, global economic uncertainty, including disruptions in the banking industry, the conflicts in Ukraine, Israel and Gaza, and other risks identified in our filings with the Securities and Exchange Commission, including our Annual Report on Form 10-K for the year ended December 31, 2023, our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. We caution you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made. We expressly disclaim any obligation to publicly update or revise any such statements to reflect any change in expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements.

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Barinthus Bio Announces Results From Ongoing Phase 2b Chronic Hepatitis B Trial, Including Achievement of Functional Cure and HBsAb Seroconversion

- *Eight participants achieved HBsAg loss at any time.*
- *Two participants met criteria for functional cure.*
- *Two participants who discontinued NUC therapy seroconverted to HBsAb positivity.*

OXFORD, United Kingdom, November 15, 2024 (GLOBE NEWSWIRE) – Barinthus Biotherapeutics plc (NASDAQ: BRNS), today announced the most significant data so far from the ongoing Phase 2b HBV003 clinical trial. The data will be presented by Dr. Chun-Jen Liu as an oral presentation on November 18, 2024, at 17:30 PT at the American Association for the Study of Liver Diseases (AASLD) – The Liver Meeting® 2024. Barinthus Bio is a clinical-stage biopharmaceutical company developing novel immunotherapeutic candidates that guide T cells to control disease.

The HBV003 study (NCT05343481) is fully recruited with a total of 121 participants, including 69 participants who had entered the trial with HBsAg levels below 200 IU/mL. The study is evaluating different dosing regimens of VTP-300 in combination with low-dose nivolumab, an anti-PD-1 monoclonal antibody. The new data showed that as of data cut off, eight participants were reported with complete HBsAg loss (defined as HBsAg levels below the lower limit of quantitation [<LLOQ, 0.05 IU/mL]) and two participants met the criteria for functional cure.

Uniquely, two of the eight participants with HBsAg loss, became positive for anti-hepatitis B antibodies (HBsAb) that they did not have before, including one of those who met functional cure criteria. The data from this ongoing study indicate that stronger responses may happen in participants treated with the combination of VTP-300 and a low dose of the anti-PD1 antibody nivolumab (Groups 1 and 2).

“Sustained HBsAg loss has proven to be the largest hurdle in getting chronic hepatitis B patients to functional cure,” said Dr. Chun-Jen Liu, investigator on HBV003 and Director of the Hepatitis Research Center and Clinical Trial Center, National Taiwan University Hospital, Taiwan. “The data we are seeing with VTP-300 is unique because they indicate a durable loss of HBsAg in participants, including two who met the criteria for functional cure. Although the study is still ongoing, these early data may bring us a step closer to potentially allowing some patients with chronic hepatitis B to come off antiviral treatment without their chronic hepatitis B progressing.”

40 participants, with HBsAg below 200 IU/mL at screening, who had reached Day 169 were assessed for nucleos(t)ide analogue (NUC) discontinuation. The data showed the following:

- 24 were eligible for NUC discontinuation.
- Eight achieved HBsAg loss at any time, two of whom achieved it after Day 169.
- Nine participants chose to discontinue NUCs.
    - 66% (n=6/9) remained off NUC therapy, five for more than six months.
        - Two of these six have met the criteria for functional cure.
        - Two of these six seroconverted to HBsAb positivity.
        - Follow up is continuing with the remaining participants to assess if they will meet functional cure criteria.
- Durable HBsAg declines were observed in all treatment groups, consistent with data previously presented at the European Association for the Study of the Liver (EASL) Congress, in June 2024.
- Preliminary safety data indicate that VTP-300 in combination with low-dose nivolumab was generally well tolerated with no treatment-related SAEs observed or reported as of data cut off.

"These Phase 2 data are incredibly encouraging and highlight the ability of VTP-300 to stimulate the immune response and induce sustained reductions in HBsAg to the point of meeting functional cure criteria," said Dr. Nadege Pelletier, Chief Scientific Officer of Barinthus Bio. "Moreover, the finding that one of the participants meeting functional cure criteria had antibodies against hepatitis B is promising as HBsAb positivity is associated with long-term control of the infection by the immune system."

Functional cure is defined by AASLD as sustained HBsAg loss and hepatitis B virus DNA <LLOQ for 6 months off-treatment. Data cut off was September 30, 2024, for lab data and October 8, 2024, for clinical data.

About the HBV003 Trial

The HBV003 trial is designed to obtain critical information on treatment dosing regimen with participants receiving VTP-300 and low-dose (LD) nivolumab. All Groups received ChAdOx at Day 1; Groups 1 & 2 received MVA with nivolumab at Day 29; Group 2 was dosed again with MVA and nivolumab at Day 85; Group 3 received only MVA at Day 29, nivolumab at Day 36, and a conditional second MVA dose at Day 85 to evaluate anti-PD-1 inhibition timing. The conditional MVA dose was administered if participants had HBsAg ≥10 IU/mL. In 2023, the study inclusion criteria was amended from people with CHB with HBsAg ≥10 and <4,000 IU/mL to ≥10 and ≤200 IU/mL, as strongest responses were observed in participants with HBsAg ≤200 IU/ml.

About VTP-300

VTP-300 is an immunotherapeutic candidate consisting of an initial dose using the ChAdOx vector and a secondary dose(s) using the MVA vector, both encoding multiple HBsAg, including full-length surface, modified polymerase, and core antigens. VTP-300 is the first antigen-specific immunotherapy that has been shown to induce sustained reductions in HBsAg. Barinthus Bio is studying VTP-300 in combination with other agents, including siRNA and low-dose anti-PD-1 antibodies in the ongoing IM-PROVE II trial, to control the infection, and counterbalance the immune suppression and T cell exhaustion in the liver caused by chronic HBV infection.

About Barinthus Bio

Barinthus Bio is a clinical-stage biopharmaceutical company developing novel immunotherapeutic candidates designed to guide the immune system to overcome chronic infectious diseases and autoimmunity. Helping people living with serious diseases and their families is the guiding principle at the heart of Barinthus Bio. With a focused pipeline built around our proprietary platform technologies, Barinthus Bio is advancing immunotherapeutic product candidates in infectious diseases and autoimmunity, including: VTP-300, utilizing our ChAdOx/MVA platform designed as a potential component of a functional cure for chronic HBV infection and VTP-1000, utilizing our SNAP-Tolerance Immunotherapy (SNAP-TI) platform and designed to treat people with celiac disease. Barinthus Bio is also conducting a Phase 1 clinical trial for VTP-850, a second-generation immunotherapeutic candidate designed to treat recurrent prostate cancer. Barinthus Bio's differentiated technology platforms and therapeutic approach, coupled with deep scientific expertise and focus on clinical development, uniquely positions the company to navigate towards delivering treatments that improve the lives of people with chronic infectious diseases and autoimmunity. For more information, visit www.barinthusbio.com.

Barinthus Bio's Forward Looking Statements

This press release contains forward-looking statements regarding Barinthus Bio within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, which can generally be identified as such by use of the words “may,” “will,” “plan,” “forward,” “encouraging,” “believe,” “potential,” and similar expressions, although not all forward-looking statements contain these identifying words. These forward-looking statements include, without limitation, express or implied statements regarding our product development activities and clinical trials, including timing for readouts of any interim data or next steps for any of our programs, including VTP-300 and the HBV003 trial, the tolerability or potential benefits of VTP-300 or imdusiran, including in combination with nivolumab, and our ability to develop and advance our current and future product candidates and programs. Any forward-looking statements in this press release are based on our management’s current expectations and beliefs and are subject to numerous risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this press release, including, without limitation, risks and uncertainties related to the success, cost and timing of our pipeline development activities and planned and ongoing clinical trials, including the risk that the timing for preliminary, interim or final data or initiation of our clinical trials may be delayed, the risk that interim or topline data may not reflect final data or results, our ability to execute on our strategy, regulatory developments, the risk that we may not achieve the anticipated benefits of our pipeline prioritization and corporate restructuring, our ability to fund our operations and access capital, our cash runway, including the risk that our estimate of our cash runway may be incorrect, global economic uncertainty, including disruptions in the banking industry, the conflict in Ukraine, the conflict in Israel and Gaza, and other risks identified in our filings with the Securities and Exchange Commission, including our Annual Report on Form 10-K for the year ended December 31, 2023, our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. We caution you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made. We expressly disclaim any obligation to publicly update or revise any such statements to reflect any change in expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements.

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Barinthus Biotherapeutics Corporate Presentation

Guiding the Immune System to Cure Disease

November 2024

Disclosure

This presentation includes express and implied "forward-looking statements," including forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward looking statements include all statements that are not historical facts, and in some cases, can be identified by terms such as "may," "will," "could," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "potential," "ongoing," or the negative of these terms, or other comparable terminology intended to identify statements about the future. Forward-looking statements contained in this presentation include, but are not limited to, statements regarding: our product development activities and clinical trials, including timing for readouts of any interim data for any of our programs and initiation of clinical trials, our regulatory filings and approvals, our estimated cash runway and cash burn, our ability to develop and advance our current and future product candidates and programs, our ability to establish and maintain collaborations or strategic relationships or obtain additional funding, the rate and degree of market acceptance and clinical utility of our product candidates, and the ability and willingness of our third-party collaborators to continue research and development activities relating to our product candidates. By their nature, these statements are subject to numerous risks and uncertainties, including factors beyond our control, that could cause actual results, performance or achievement to differ materially and adversely from those anticipated or implied in the statements. Such risks and uncertainties, include, without limitation, risks and uncertainties related to: preclinical and clinical studies, the success, cost and timing of our product development activities and planned and ongoing preclinical studies and clinical trials, including the risks of the timing for preliminary, interim or final data or initiation of our clinical trials may be delayed, the risk that interim or topline data may not reflect final data or results, our ability to execute on our strategy, regulatory developments, the risk that we may not achieve the anticipated benefits of our pipeline prioritization and corporate restructuring, our ability to fund our operations, and access capital, our cash runway, including the risk that our estimate of our cash runway may be incorrect, global economic uncertainty, including disruptions in the banking industry, and other risks, uncertainties and other factors identified in our filings with the Securities and Exchange Commission (the "SEC"), including our Annual Report on Form 10-K for the year ended December 31, 2023, our Quarterly Report on Form 10-Q for the most recently ended fiscal quarter and subsequent filings with the SEC. You should not rely upon forward-looking statements as predictions of future events. Although our management believes that the expectations reflected in our statements are reasonable, we cannot guarantee that the future results, performance or events and circumstances described in the forward-looking statements will be achieved or occur and actual results may vary. Recipients are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date such statements are made and should not be construed as statements of fact. Except as required by law, we do not assume any intent to update any forward-looking statements after the date on which the statement is made, whether as a result of new information, future events or circumstances or otherwise.

Certain information contained in this presentation and statements made orally during this presentation relate to or are based on studies, publications, surveys and other data obtained from third-party sources and our own internal estimates and research. While we believe these third-party studies, publications, surveys and other data to be reliable as of the date of this presentation, it has not independently verified, and makes no representations as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. In addition, no independent source has evaluated the reasonableness or accuracy of our internal estimates or research and no reliance should be made on any information or statements made in this presentation relating to or based on such internal estimates and research.

Our Mission

To advance the next generation of immunotherapies that lead T cells to gain control over disease and improve patients' lives.

BARINTHUS BIOTHERAPEUTICS

Company Overview

About Us

- Barinthus Bio (Nasdaq: BRNS) is a biotechnology company with a specific focus on immunotherapies for chronic diseases.
- Spun out of the University of Oxford in 2016.
- IPO on the Nasdaq and acquired Avidea Technologies, a Johns Hopkins University spin-out, in 2021.

Disease Areas

- Our approach is to use antigen-specific immunotherapies to guide T cells to cure disease:
  - Hepatitis B
    - 2 ongoing Phase II clinical trials.
  - Celiac Disease
    - Ongoing Phase I clinical trial of novel peptide nanoparticle platform.

Financials

- Strong balance sheet:
  - Cash of $106 million.[1]
  - Outstanding ordinary shares: 40.2 million.[3]
  - Estimated cash runway into Q2 2026.[2]
  - No debt or outstanding warrants.

[1] Including cash, cash equivalents and restricted cash as of September 30, 2024, as reported on Form 10-Q on November 6, 2024.
[2] Based on management's current estimate of status and strategy. Any changes could be material.
[3] As of October 30, 2024, as reported on Form 10-Q on November 6, 2024

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Focused Pipeline With Anticipated Near-Term Clinical Milestones

Harnessing the power of antigen-specific immunotherapies to target large market opportunities in areas of high unmet need.

Key Programs	Product Candidate*	Therapeutic For	Preclinical	Phase 1	Phase 2	Phase 3	Status/Anticipated Upcoming Milestones[1]
Infectious Disease	VTP-300 ◆ ✓	Chronic Hepatitis B Virus (HBV) infection					Phase 2b HBV003 data & Phase 2a IM-PROVE II data (H1 2025)
Autoimmunity	VTP-1000	Celiac disease					Phase 1 single ascending dose data (H1 2025)

◆ Data supporting proof-of-concept announced ✓ Existing human clinical data

ChAdOx + MVA SNAP-TI

*Barinthus Bio has worldwide rights for all product candidates.
These are estimated timelines only and our pipeline may be subject to change.

[1] Based on management's current estimates on expected clinical data milestones.

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Our Approach: Disease-specific Immunotherapies

Chronic infectious & autoimmune diseases occur when there is an imbalance in the immune system leading to its inability to control the disease.
Our disease-specific immunotherapies aim to address this imbalance by guiding T cells to cure disease.

Product Candidate	Disease Area	Mode of Action	Aim	
 VTP-300	Chronic Hepatitis B	Anti-viral immunity		Eliminate virally infected cells
 VTP-1000	Celiac Disease	Immune tolerance		Protect tissue cells from injury

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VTP-300

Hepatitis B Virus (HBV) Therapeutic

BARINTHUS BIOTHERAPEUTICS

Guiding the immune system to cure disease

Chronic HBV Infection Represents a Large Market Opportunity

There is an urgent need to develop effective therapeutic strategies to cure chronic HBV infection.

~254M Patients are chronically infected with HBV.[1]

1.2M New HBV infections per year.[1]

~ 13% Patients are diagnosed.[1]

Limitations of Current Treatments

- Existing therapies typically require chronic treatment.
- Standard of care nucleos(t)ide analogs (NUCs) are slow-acting with low cure rates.[2]
- Pegylated interferon has significant side effects.[3]
- Less than 10% of patients achieve a functional cure with existing therapies.[4]

HBV: hepatitis B virus
[1] WHO, Global hepatitis report, 2024 [2] Broquetas T and Carrion JA, Hepat Med. 2002;14:87-100. [3] Van Zonneveld M, et al, Aliment Pharmacol Ther. 2005;21(9):1163-71. [4] Boyd A, et al, Viruses. 2021 Jul 11;13(7):1341

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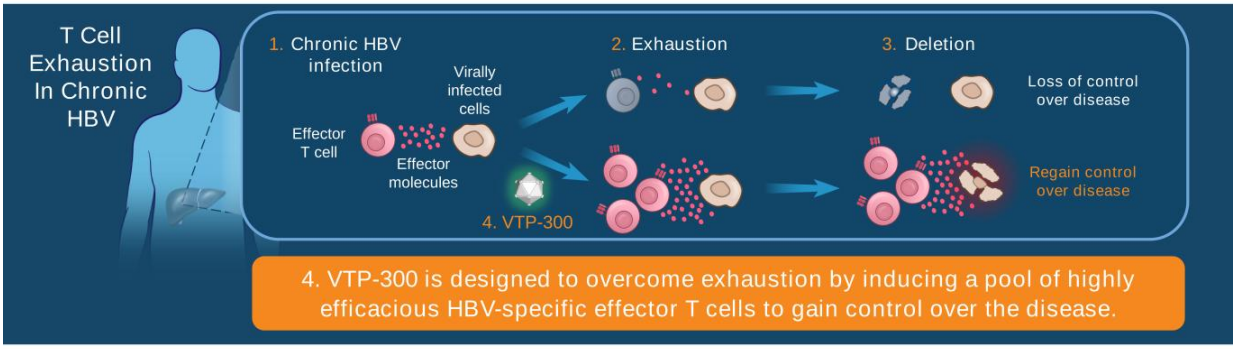
Chronic HBV Infection Leads to T Cell Exhaustion

1. Chronic exposure to HBV and HBsAg can lead to T cell exhaustion.

2. Exhausted T cells lose their functions, resulting in decreased secretion of cytokines and killing molecules.

3. In severe stages of exhaustion, HBV specific T cells can be deleted, leading to the loss of HBV-specific T cell response and no control of the disease.



4. VTP-300 is designed to overcome exhaustion by inducing a pool of highly efficacious HBV-specific effector T cells to gain control over the disease.

HBsAg: Hepatitis B surface antigen

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A Combined Approach is Needed for Functional Cure

Experts agree that a functional cure will likely require a combination of agents with complementary mechanisms of action. VTP-300 is an investigational antigen-specific immunotherapy that is being evaluated as a critical component to enhancing rates of functional cure in combination with other therapies in two ongoing Phase 2 trials: HBV003 & IM-PROVE II.

Three potential components to a functional cure

Inhibit viral replication	Directly lower HBsAg burden	Stimulate host immune system response	AASLD Functional Cure Definition
NUCs (Current standard of care) Capsid & Entry Inhibitors (Investigational)	RNAi Oligonucleotide Monoclonal antibodies (mAbs)	Antigen-specific immunotherapies (VTP-300) PD-1 Inhibitors Immunostimulants (TLR agonists)	• HBsAg loss, • HBV DNA loss, and • Off NUC therapy, sustained for at least 6 months.

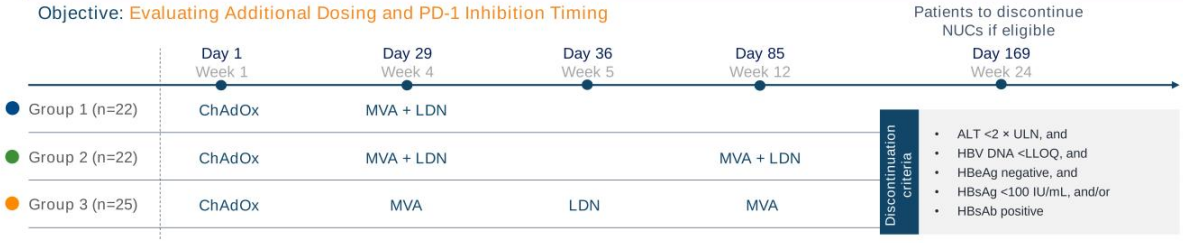
VTP-300 is designed to engage the host immune system and has been shown to induce sustained HBsAg reduction in ongoing trials.[1]

[1] Based on interim data, data cut off date: April 15, 2024. HBsAb: Hepatitis B surface antibody

HBV003: Phase 2b Study – Enrolment Complete

VTP-300 + Low-dose nivolumab (LDN), N=69, with baseline HBsAg ≤200 IU/mL*

Objective: Evaluating Additional Dosing and PD-1 Inhibition Timing



Inclusion Criteria

- HBV DNA ≤1,000 IU/mL.
- HBsAg ≤200 IU/mL.*
- On NUCs for ≥6 months.

Primary Endpoint

- % participants with a greater than 1 log HBsAg reduction at 6 months after initiation of therapy.

Secondary Endpoints

- Safety: incidence of AEs and SAEs.
- T cell response.

HBV003 results will inform treatment dosing regimen

Group 1: Mirrors Group 3 in HBV002 to further support response effect observed.
Group 2: Assesses if additional dose of MVA-HBV with LDN at Day 85 further reduces HBsAg.
Group 3: Assesses if delaying LDN until after MVA-HBV is more optimal (plus adds option of 2nd MVA-HBV dose).

Study Reference: NCT05343481
ALT: Alanine aminotransferase; LLOQ: lower limit of quantification; ULN: upper limit of normal; HBeAg: Hepatitis B e Antigen.
*Inclusion criteria were amended in 2023 to focus on participants with HBsAg ≤200 IU/mL, as such data now focuses on this group.

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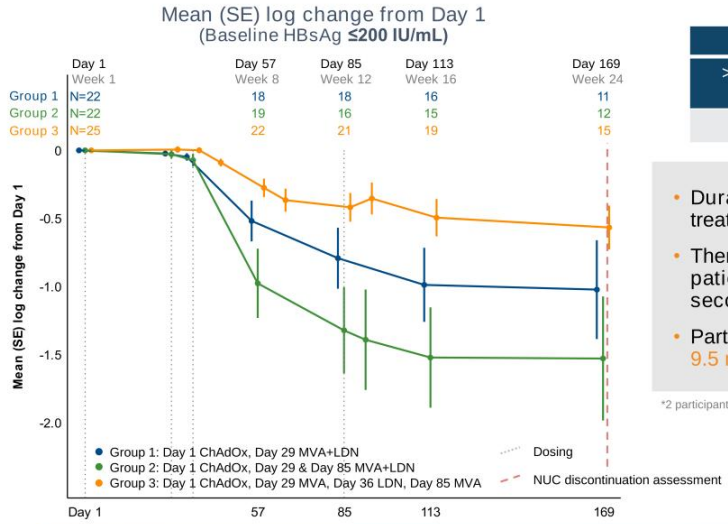
HBV003: Durable HBsAg Declines Observed



Participants, baseline HBsAg ≤200 IU/mL	
>1 log reduction at Day 169	HBsAg loss (<LLOQ), any time
11	8*

- Durable HBsAg declines were observed in all treatment groups.
- There was a trend toward stronger responses in patients who received LDN at the time of the second VTP-300 dose (Groups 1 & 2).
- Participants have maintained HBsAg loss for up to 9.5 months.

*2 participants achieved HBsAg loss after Day 169.

Interim data, presented at AASLD 2024. Data cut off was September 30, 2024, for lab data and October 8, 2024, for clinical data.

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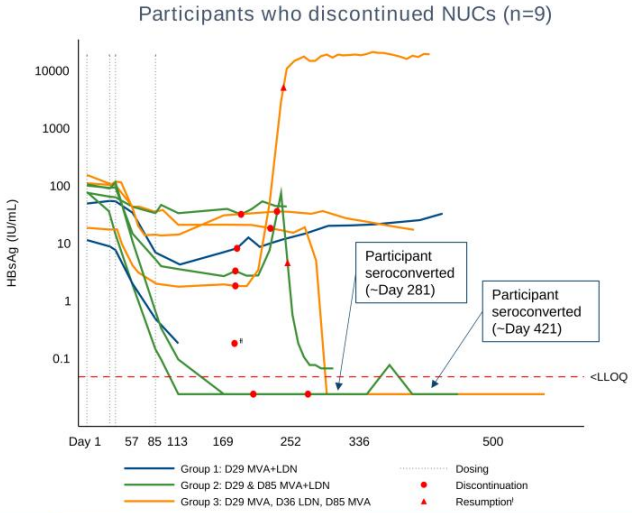
HBV003: Two Participants Met the Criteria for Functional Cure



24 of 38* were eligible for NUC discontinuation at Day 169, 9 of these discontinued:**

Remain off NUC therapy	Met criteria for functional cure	Seroconverted to HBsAb positivity
6/9	2/6	2/6

- Follow up is continuing with the remaining participants to assess if they will meet functional cure criteria.
- Preliminary safety data indicate that VTP-300 in combination with LDN was generally well tolerated across all participants with no treatment-related SAEs observed or reported.

*2 additional participants were eligible for NUC discontinuation but due to differences in lab and clinical data cut off are not included in lab data results.
**If criteria for NUC discontinuation met, PI or participant could elect not to discontinue NUCs.
‡ An additional participant resumed NUCs following lab data cut-off (30 Sep 2024), but before clinical data cut-off (8 Oct 2024), this patient's NUC resumption is not included in the graph.
ǂ This patient's HBsAg level for Day 169 had not been yet been processed by data cut-off, due to the difference between lab and clinical data cut-offs.

Interim data, presented at AASLD 2024. Data cut off was September 30, 2024, for lab data and October 8, 2024, for clinical data.

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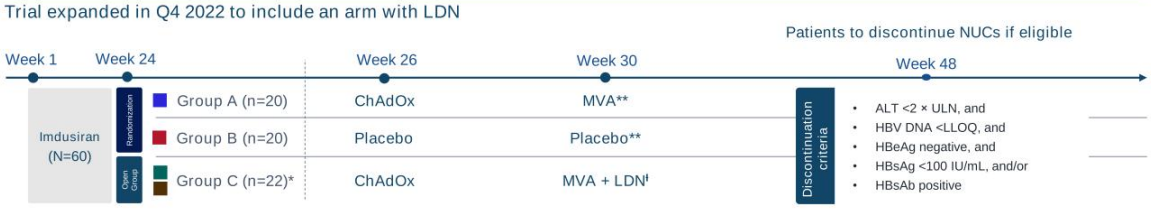
IM-PROVE II: Phase 2a – Collaboration with Arbutus

Imdusiran (RNAi) + VTP-300 +/- LDN, N=60 – Enrolment complete

Trial expanded in Q4 2022 to include an arm with LDN



Inclusion Criteria

- HBV DNA ≤20 IU/mL.
- HBsAg ≥100 to <5,000 IU/mL.
- On NUCs for at least 1 year.

Primary Endpoints

- Safety: incidence of AEs and SAEs.

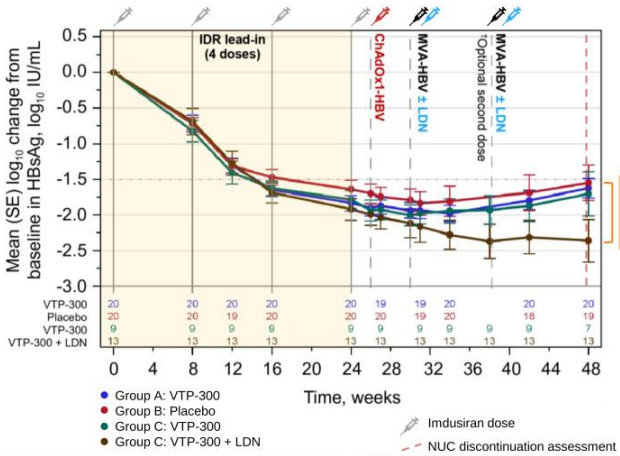
Secondary Endpoints

- Change in HBsAg concentration from baseline.
- Proportion of participants with a change in HBsAg from baseline meeting response criteria (≥0.5, 1, 2, or 3 log10 reduction).
- Change in HBV DNA, RNA, core-related antigen, HBsAg antibody, HBsAg e-antibody from baseline.

LDN: Low-dose nivolumab ALT: Alanine aminotransferase; LLOQ: lower limit of quantification; ULN: upper limit of normal.
*13/22 participants received VTP-300+LDN, 9/22 received VTP-300.
**Additional MVA/Placebo to be dosed at Week 38, if patients have experienced a ≥0.5 log drop in HBsAg from Week 26 to Week 34.
‡Additional MVA+LDN to be dosed at Week 38, if patients have HBsAg ≥10 IU/mL at Week 34.

IM-PROVE II: Imdusiran, VTP-300 and LDN Showed Significantly Greater HBsAg Decline

Mean HBsAg Change from Baseline by Treatment Group



Statistically significant difference*

	Group C (N=22)**	
Treatment	Imdusiran lead in, VTP-300 + LDN	Imdusiran lead in, VTP-300
Participants	13/22	9/22

- **Group C participants receiving imdusiran, VTP-300 and LDN had a significantly greater mean HBsAg log_{10} decline at Week 48** compared with all other groups.
- Participants in Group C who received VTP-300 + LDN were **more likely to reach HBsAg values <100 and <10 IU/mL**.

*P=0.017. ANCOVA adjusted for baseline HBsAg.
**Some participants were not eligible for LDN under the trial criteria.

Interim data, presented at AASLD 2024.

IM-PROVE II: HBsAg Loss Observed in Group C at Week 48

VTP-300

Arbutus BIOPHARMA

Treatment Group	Discontinued NUCs	HBsAg <100 IU/mL, Week 48	HBsAg <10 IU/mL, Week 48	HBsAg loss (<LLOQ), Week 48	HBsAg <10 IU/mL, Week 72	HBsAg loss (<LLOQ), Week 72
Group A, VTP-300*	84% (16/19)	95% (18/19)	37% (7/19)	0% (0/19)	60% (3/5)	20% (1/5)
Group B, Placebo*	53% (10/19)	79% (15/19)	21% (4/19)	5% (1/19)	0% (0/5)	0% (0/5)
Group C, VTP-300 + LDN**	69% (9/13)	92% (12/13)	54% (7/13)	23% (3/13)	-	-
Group C, VTP-300**	71% (5/7)	71% (5/7)	43% (3/7)	0% (0/7)	-	-

- More participants receiving imdusiran + VTP-300 discontinued NUCs than placebo.
- More participants receiving imdusiran +VTP-300 + LDN had HBsAg <10 IU/mL at Week 48 than other groups.
- By Week 48, 23% of participants in Group C receiving VTP-300 + LDN (3/13) had achieved HBsAg loss.
- Increases in soluble immune biomarkers associated with immune checkpoint proteins, inflammation, and T-cell activation were observed in those who had HBsAg loss at any point through Week 48.
- Imdusiran, VTP-300 and LDN was generally well-tolerated when administered sequentially.
- No SAEs or treatment discontinuations have been reported.

*End of treatment data, presented at EASL 2024.
**Preliminary data, presented at AASLD 2024.

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VTP-300 Trials Overview – Q4 2024 Update

Key updates in these data from those previously presented at EASL in the second quarter of 2024 include:

EASL June 24'	AASLD Nov 24'	HBV003 – Phase 2b
21	38	participants out to week 24.
4	8	participants have had achieved HBsAg loss at any time.
-	2/6	participants met criteria for functional cure to date.
-	2/6	participants off NUC therapy seroconverted to HBsAb positivity.
Durable HBsAg declines continue to be observed in all treatment groups.		
Participants have maintained HBsAg loss for up to 9.5 months.		

EASL June 24'	AASLD Nov 24'[1]	IM-PROVE II – Phase 2a
38	58	participants out to week 48.
11	11	participants out to week 72.
1	1	VTP-300 participant (Group A) reached HBsAg undetectable at Week 72.
-	3	VTP-300 + LDN participants (Group C) achieved HBsAg loss by Week 48.
Participants receiving VTP-300 + LDN (Group C) had a significantly greater mean HBsAg $\log_{10}$ decline at Week 48 compared with all other groups.		
More participants receiving VTP-300 + LDN had HBsAg <10 IU/mL at Week 48 than other groups.		

Next anticipated readout for both trials:

H1 2025

[1]Only updated data on Group C were presented at AASLD in November 2024.

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VTP-1000

Celiac Disease Therapeutic

BARINTHUS BIOTHERAPEUTICS

Guiding the immune system to cure disease

Celiac Disease: A Large and Growing Market

Everyone likely knows someone suffering from Celiac Disease

~1%	Of people have Celiac Disease worldwide.[1]	~80 million people.
~60%	Of patients are not able to adhere to a strict Gluten-Free Diet.[2]	~48 million people.
~20%	Of patients are Non-Responsive Celiac Disease patients.[3]	**~16 million people's symptoms** continue despite avoiding gluten.
~7.5%	Increasing incidence per year.[4]	Increasing financial burden on healthcare systems.

[1] Celiac Disease Foundation. 2024.
[2] Rubin, G., et al. (2009) Aliment Pharmacol Ther. 30(4), 315-330.
[3] Leffler, DA., et al (2007) Clin Gastroenterol Hepatol. 5(4),445-450.
[4] King, JA., et al. Am J Gastroenterol (2020). 115(4):507-525

0 current FDA or EMA approved treatments.

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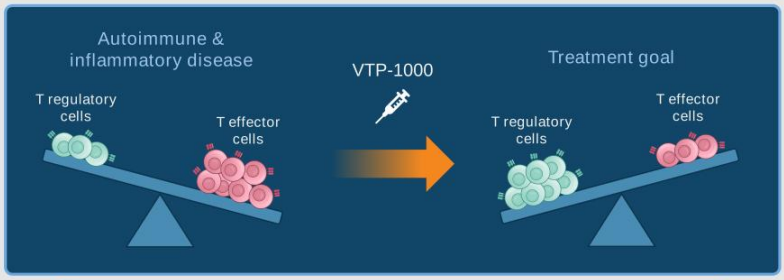
Celiac Disease: A Loss of Immune Tolerance to Gluten

Celiac disease is triggered by an immune response to gluten that damages the small intestine and can cause long-lasting health problems.

- In celiac disease, effector T cells attack the lining of the small intestine, overwhelming the regulatory T cells that usually prevent an autoimmune response.
- VTP-1000 aims to induce tolerance to gluten by reducing effector T cells and increasing regulatory T cells to guide the immune system to tolerate gluten.
- The overall goal is to allow people with celiac disease to consume a normal diet without having to avoid gluten.



VTP-1000 aims to restore the imbalance in the immune system in a precise, disease-specific manner

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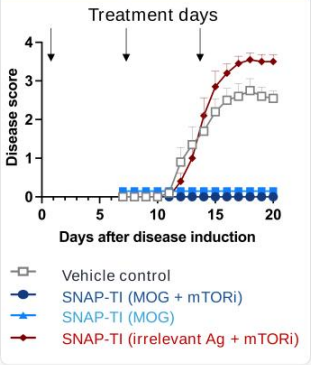
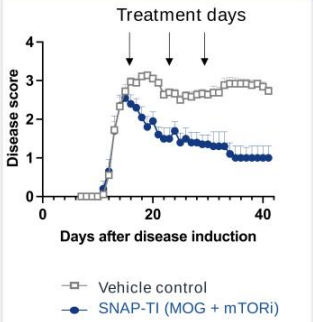
SNAP-TI Ameliorates Disease by Increasing Treg:Teff Ratio

Pre-Clinical Results in EAE, a mouse model of Multiple Sclerosis:

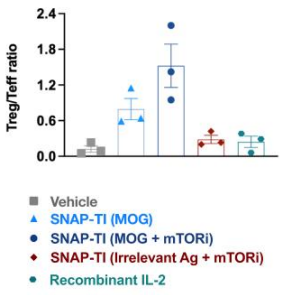
Protection against disease onset[1]



Reversed established disease[1]



Increased Treg:Teff ratio[1]



Efficacy is antigen-specific (T cell mediated)

Protection against re-challenge suggests immune memory

mTOR inhibitor:

- improves Treg:Teff ratio
- prevents toxicity associated with exposure to disease antigen
- prevents Anti-drug Abs

MoA and disease amelioration observed in multiple CD4- (e.g., MS) and CD8- (e.g., T1D) driven mouse disease models

[1] Unpublished preclinical data, Barinthus Bio, Data on File.

EAE: Experimental autoimmune encephalomyelitis
MOG: myelin oligodendrocyte glycoprotein
mTORi: mechanist target of rapamycin

MS: Multiple sclerosis
T1D: Type 1 diabetes

GLU001: Phase 1 – Study Design, Trial Initiated Q3 2024

Objective: Evaluating safety and tolerability of single and multiple doses of VTP-1000 in patients with Celiac Disease

Part A – Single Ascending Dose (N=18)

Part B – Multiple Ascending Dose (N=24)

- Sequential dosing levels: 7-day gap from first 2 participants at each level and safety review before escalation to next dosing level.

Dose Levels	VTP-1000 (Part A/B)	Placebo
1	N=4/6	N=2
2	N=4/6	N=2
3	N=4/6	N=2

Key Inclusion Criteria

- Diagnosis of celiac disease as confirmed by positive serology and intestinal histology.
- Well-controlled, gluten restricted diet ≥12 months.

Key Primary Endpoints

- Safety: incidence of AEs and SAEs.
- Changes from baseline in anti-tissue transglutaminase immunoglobulin A antibodies.

Other Outcome Measures

- Serum cytokine (IL-2) concentrations.

Next anticipated milestone:

SAD data: H1 2025

Study Reference: NCT06310291

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VTP-1000: The First Step Towards a Growing Pipeline

SNAP-TI Supporting Package

- ☑ Preclinical proof-of-concept in a variety of disease models:
  - Multiple Sclerosis
  - Vitiligo
  - Type 1 diabetes
- ☑ VTP-1000 GLP Tox complete
- ☑ VTP-1000 IND Clearance

Key Design Features

Optimal Design
- Self assembling 20 nm nanoparticle.
- Large loading capacity of a broad range of targetable antigens.

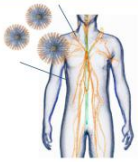
Lymph Node Targeting
- Optimally accesses lymph node APCs.
- Key for T cell immunity.

Co-delivered Immunomodulator
- Efficacy: Enhanced Treg/Teff ratio.
- Safety: Prevents antigen associated toxicity.

Ease of Route of Administration
- Intramuscular/subcutaneous injection.
- Key for patient compliance.

Broad Applicability:

- Range of disease-associated antigens
- Various disease mechanisms
- Different tissues



Diverse targetable indications
- e.g., Celiac, Type 1 diabetes, Rheumatoid arthritis, Vitiligo, Primary biliary cholangitis, transplant and more…

BARINTHUS

Company Highlights

Guiding the immune system to cure disease

BARINTHUS BIOTHERAPEUTICS

Financial Overview and Catalysts

Guiding the immune system to cure disease

Cash
$106 million[1] as of September 30, 2024
No debt or outstanding warrants
Estimated cash runway into Q2 2026[3]

Expected near-term catalysts[2]

- Q4 2024
  - VTP-300 (HBV): Phase 2b HBV003 data & Phase 2a IM-PROVE II data
- H1 2025
  - VTP-1000 (Celiac): Phase 1 single ascending dose data data
  - VTP-850 (Prostate): Phase 1 results

[1] Including cash, cash equivalents and restricted cash as of September 30, 2024, as reported on Form 10-Q on November 6, 2024.
[2] Based on management's current estimates on expected clinical data milestones.
[3] Based on management's current estimate of status and strategy. Any changes could be material.

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Other Programs & Partnered Pipeline

Guiding the immune system to cure disease

BARINTHUS BIOTHERAPEUTICS

Barinthus Bio's Other Programs

For more information about these programs, please visit: www.barinthusbio.com/pipeline/

Other Programs	Product Candidate*	Therapeutic For	Preclinical	Phase 1	Phase 2	Phase 3	Status/Anticipated Upcoming Milestones
Cancer	VTP-800/850 ✓	Prostate cancer		ChAdOx + MVA			Phase 1 data (2025)

✓ Existing human clinical data

*Barinthus Bio has worldwide rights for all product candidates.
These are estimated timelines only and our pipeline may be subject to change.

Barinthus Bio's Partnered Pipeline

For more information about these programs, please visit: https://www.barinthusbio.com/partnerships/

Program	Product Candidate		Partner	Preclinical	Phase 1	Phase 2	Phase 3	Barinthus Bio Rights	Status/Anticipated Upcoming Milestones
Cancer Programs	VTP-600 ✓	NSCLC/ESCC therapeutic in combo. with checkpoint inhibitor + chemo	Ludwig Cancer Research / Cancer Research UK					Worldwide (76% of Sub.)	Phase 1/2a ongoing, enrolment stopped
Prophylactic Programs	VTP-500 ✓	MERS	University of Oxford / CEPI					Worldwide	Initiation of Phase 2
	VTP-400 ✓	Zoster	CanSinoBIO					Worldwide (excl. China)	Phase 1 ongoing

✓ Existing human clinical data

ChAdOx | ChAdOx + MVA

NSCLC = Non-Small Cell Lung Cancer
ESCC = Esophageal Squamous-Cell Carcinoma

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Guiding the Immune System to Cure Disease

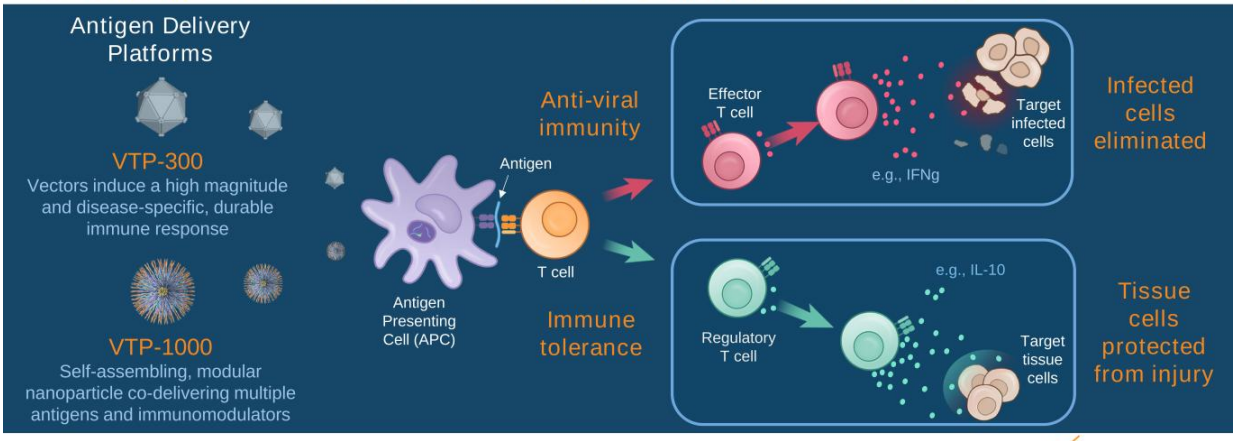
Thank You

BARINTHUS BIOTHERAPEUTICS

Our Approach: Antigen-specific Immunotherapies

Chronic infectious & autoimmune diseases occur when there is an imbalance in the immune system leading to its inability to control the disease.

Our antigen-specific immunotherapies aim to address this imbalance by guiding T cells to cure disease.



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