Barinthus Biotherapeutics Corporate Presentation

Guiding the Immune System to Cure Disease

June, 2024

BARINTHUS BIOTHERAPEUTICS

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, whether results from preclinical studies and clinical trials will be predictive of the results of future trials, our ability to execute on our strategy, regulatory developments, our ability to fund our operations, global economic uncertainty, including disruptions in the banking industry, and the impact that the COVID-19 pandemic may have on our clinical trials, preclinical studies and access to capital, 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.

Company Overview

Guiding the immune system to cure disease

Focused pipeline with anticipated near-term clinical milestones

- **2 key programs** in infectious disease and autoimmunity.
  - Novel **SNAP-TI platform** moving into the clinic: **trial initiation in celiac disease anticipated in Q3 2024.**[1]
  - **2 Phase 2 HBV data readouts expected in Q4 2024.**[1]

Validated platforms accumulating clinical data

- Proprietary platforms (ChAdOx, MVA, SNAP) designed to drive **focused immune responses**.
- **Positive Phase 2 clinical data generated in chronic HBV infection**.

Strong Balance Sheet

- Cash of **$130 million.**[2]
- Outstanding ordinary shares: 39.0 million.
- Estimated cash **runway into Q2 2026.**[3]
- No debt or outstanding warrants.

Our Mission

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

[1] Based on management's current estimates on expected clinical data milestones.
[2] Including cash, cash equivalents and restricted cash as of March 31, 2024, as reported on Form 10-Q on May 13, 2024.
[3] Based on management's current estimate of status and strategy. Any changes could be material.

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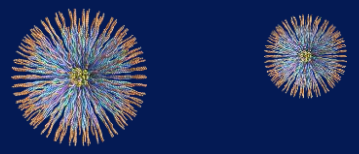
Our Approach

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

Antigen-Specific Immunotherapies to Guide T-cells to Cure Disease

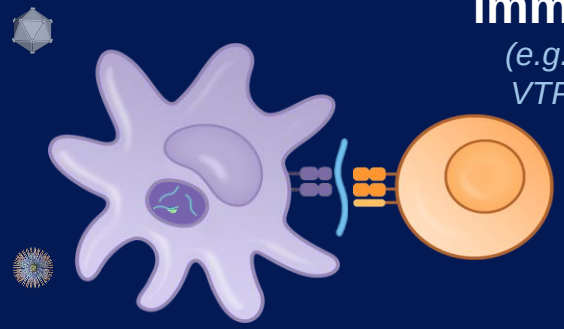
Vectors

Induce a high magnitude of disease-specific, durable immune response



SNAP

Modular design co-delivering multiple antigens and immunomodulators

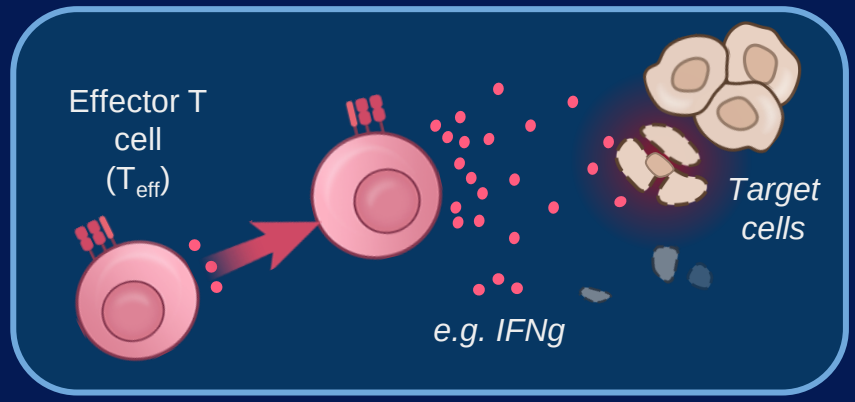


Anti-viral & anti-cancer immunity

(e.g. HBV: VTP-300)

Immune tolerance

(e.g. Celiac: VTP-1000)



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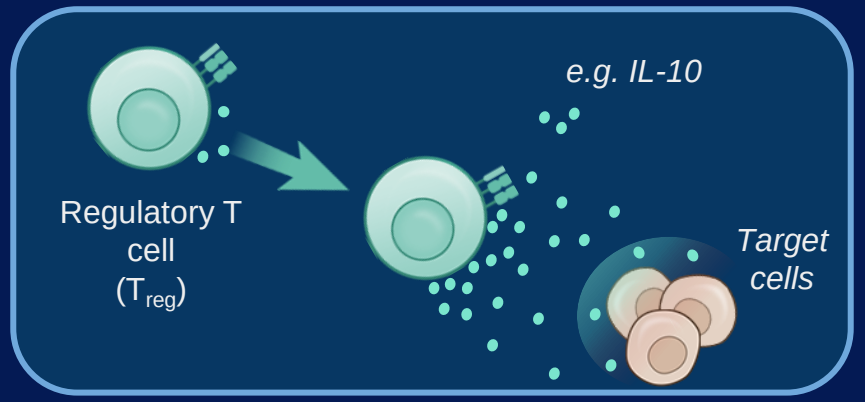

Target cells protected

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Focused Pipeline With Anticipated Near-Term Clinical Milestones

Harnessing the Power of Antigen-Specific Immunotherapies to Treat Chronic Infectious Diseases, Autoimmunity and Cancer

Key Programs	Product Candidate*	Therapeutic For	Preclinical	Phase 1	Phase 2	Phase 3	Status/Anticipated Upcoming Milestones
Infectious Disease	VTP-300 ◆ ✓	Chronic Hepatitis B Virus (HBV) infection					Phase 2b interim analysis & Phase 2a interim results (Q4 2024)
Autoimmune	VTP-1000	Celiac disease					IND acceptance Phase 1 initiation (Q3 2024)

Other Programs	Product Candidate*	Therapeutic For	Preclinical	Phase 1	Phase 2	Phase 3	Status/Anticipated Upcoming Milestones
Cancer	VTP-800/850 ✓	Prostate cancer					Phase 1 data (2025)
Infectious Disease	VTP-200 ▶ ✓	Persistent Human Papillomavirus (HPV) infection					Phase 1b/2 complete

◆ Data supporting proof-of-concept announced ▶ Near-term proof-of-concept readout ✓ 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.

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VTP-300

Hepatitis B Virus (HBV) Therapeutic

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HBV Chronic 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

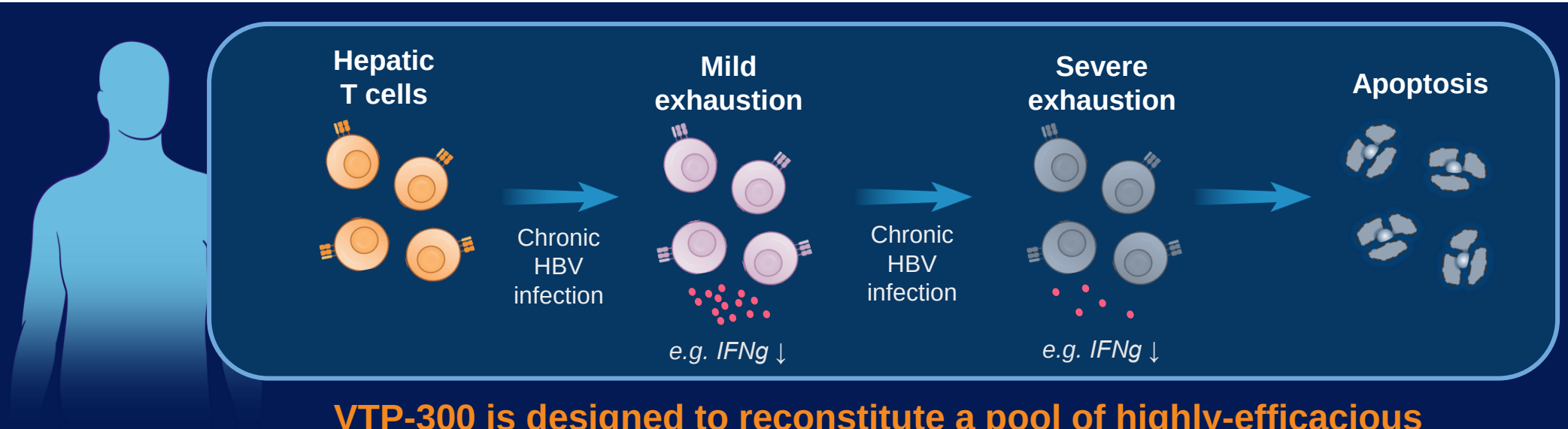
- Existing therapies typically require chronic treatment.
- NUCs are slow-acting with low cure efficacy.[2]
- Pegylated interferon has significant side effects.[3]
- Less than 10% of patients achieve a functional cure with existing therapies.

HBV: hepatitis B virus; **NUCs**: Nucleos(t)ide analogs.

[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

Chronic HBV Infection Can Lead to T Cell Exhaustion

- Chronic exposure to HBV and high levels of HBsAg leads to stepwise and progressive loss of T cell function (**T cell exhaustion**).
- Exhausted T cells lose their proliferative capacity and effector functions (decreased secretion of cytokines and killing molecules).
- In **severe stages of exhaustion**, HBV specific T cells can be completely deleted, leading to the **loss of HBV-specific T cell response** and **no control of the disease**, which continues to progress.



VTP-300 is designed to reconstitute a pool of highly-efficacious HBV-specific T cells to gain control over the disease.

Adapted from Ye et al, 2015.

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VTP-300 Could be a Critical Component to a Functional Cure Regimen for HBV

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.

Three potential components to a functional cure

Inhibit viral replication	Directly **lower** viral antigen Hepatitis B surface antigen burden (HBsAg)	**Stimulate** host immune system response
NUCs Capsid & Entry Inhibitors (*Investigational*)	RNAi Oligonucleotide Monoclonal antibodies (mAbs)	Antigen-specific immunotherapies (**VTP-300**) PD-1 Inhibitors Immunostimulants (TLR agonists)

Defining functional cure:

- HBsAg undetectable
- HBV DNA undetectable
- With or without HBsAb seroconversion
- 6 months off therapy

2 ongoing trials:

- **HBV003:** VTP-300 + αPD1
- **AB-729-202:** siRNA + VTP-300 ± αPD1

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.

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VTP-300 Trials Overview – Q2 2024 Update

Key updates in these data from those previously presented at AASLD in the fourth quarter of 2023 include:

Data Update		HBV003 – Phase 2b
Nov 23’	June 24’	
9/40	**21/40**	participants out to week 24.
7/9	**16/21**	participants were eligible **for NUC discontinuation.**
1/3	**5/7**	participants who discontinued **are still off NUC therapy.**
1/9	**4/21**	participants have had undetectable levels of surface antigen at any time.
Not reported	**14/21**	participants have <10 IU/mL HBsAg at Week 24 or later.

Data Update		AB-729-202 – Phase 2a
Nov 23’	June 24’	
12/40	**38/40**	participants out to **week 48.**
0	**11**	participants out to **week 72.**
100%	**84%**	met **NUC discontinuation** criteria in Group A (VTP-300).
Not reported	**1**	**VTP-300 subject reached HBsAg undetectable at Week 72** after >2 log decline between Week 64 and 72.

Interim data, presented at EASL 2024.

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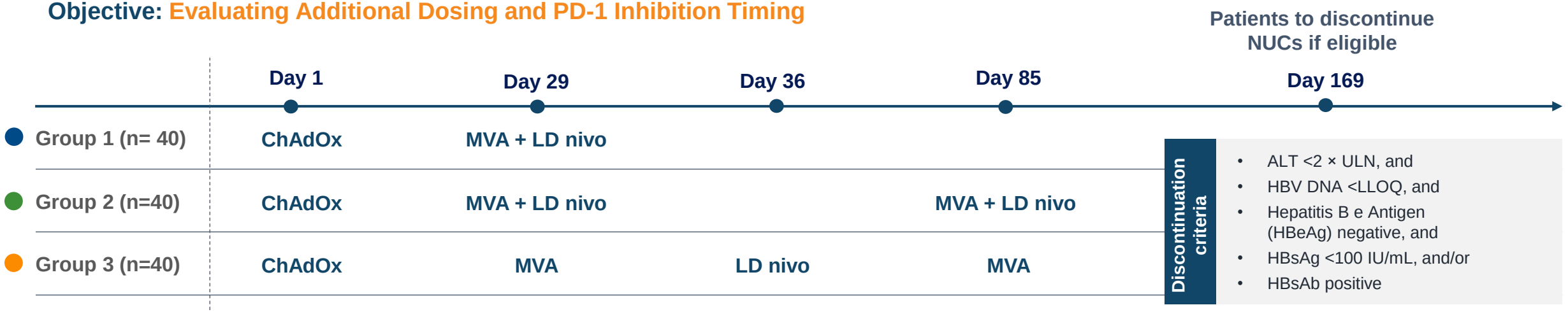
HBV003: Phase 2b Study – Currently Enrolling Patients

VTP-300 + Low-Dose (LD) nivolumab (N=120) - Initiated in Q4 2022

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 LD nivolumab at Day 85 further reduces HBsAg.

Group 3: Assesses if delaying LD nivolumab 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 quantitation; **ULN**: upper limit of normal.

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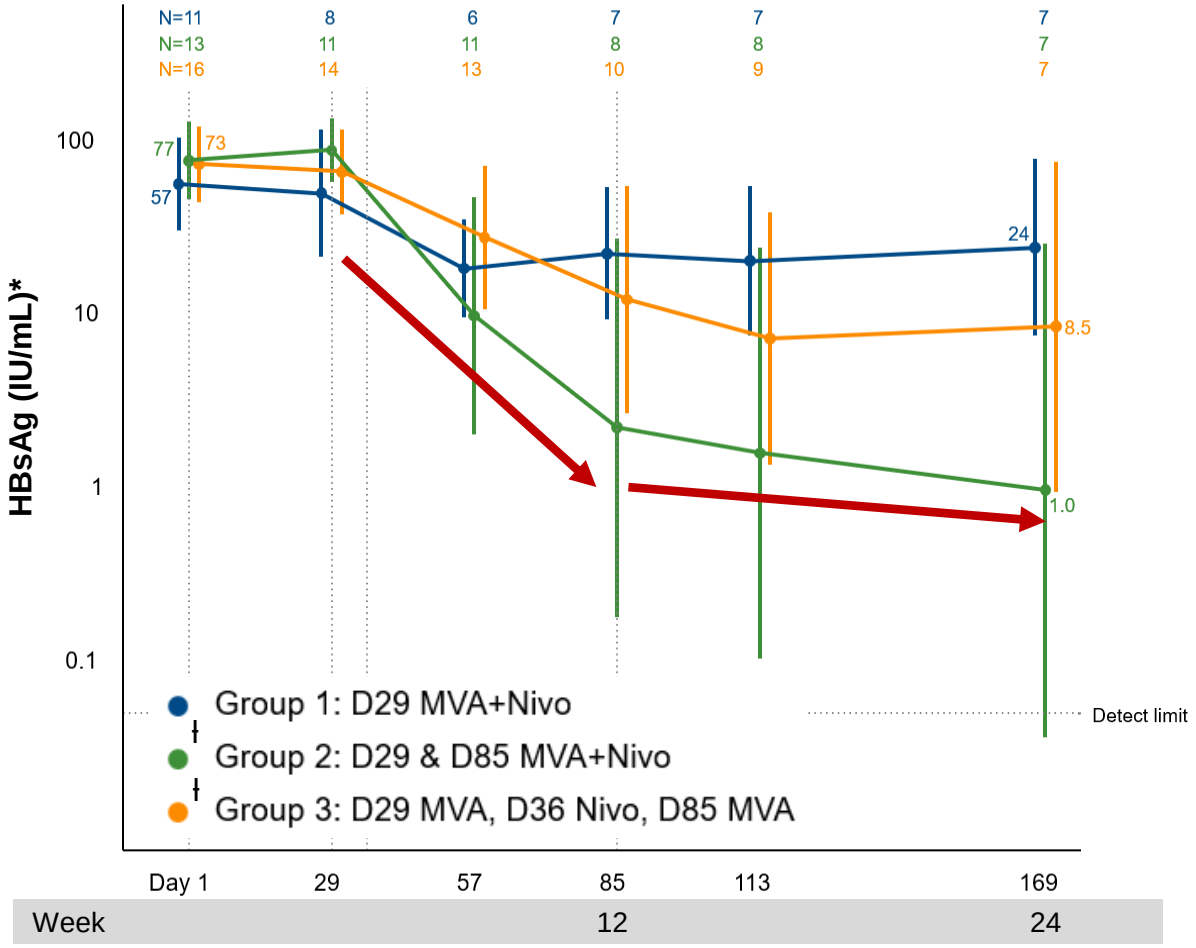
HBV003: Sustained HBsAg Declines Observed in All Groups

Participants with screening HBsAg ≤200 IU/mL



	Group 1 (N=7)	Group 2 (N=7)	Group 3 (N=7)	Total (N=21)
≥0.5 log reduction at Day 169 (Week 24)	2 (29%)	5 (71%)	6 (86%)	13 (62%)
≥1 log reduction at Day 169 (Week 24)	0	5 (71%)	1 (14%)	6 (29%)

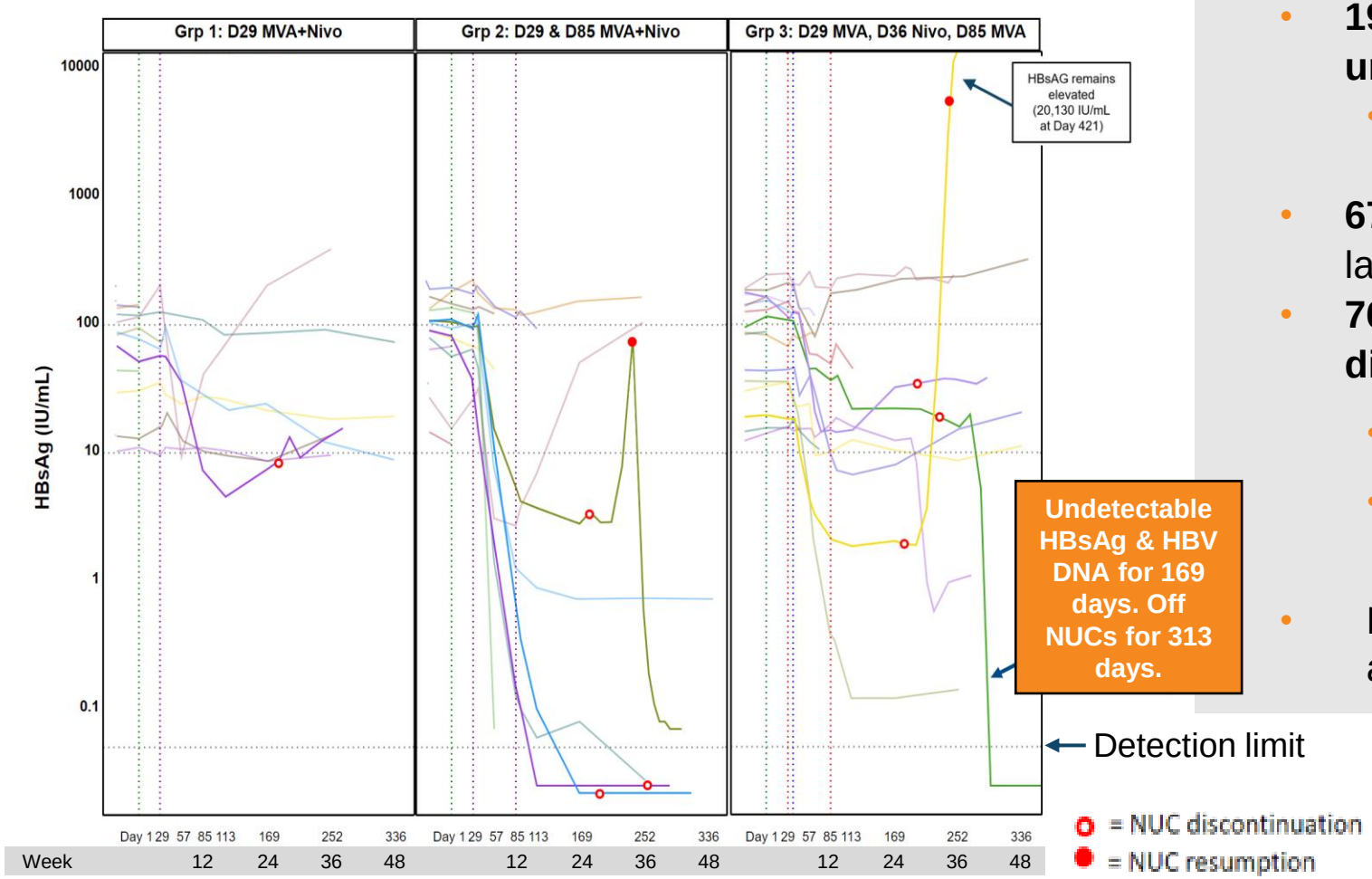
- Robust HBsAg **declines observed soon after Day 29 administration**.
- HBsAg declines after Day 85 **maintained in all Groups**.
- VTP-300 and LD nivolumab were both generally well-tolerated.
  - Thyroid dysfunction was reported in 8 of 91 (9%) participants; normal TFTs reported in 7 of 8 (88%) at last recorded visit.
  - ALT elevations >2xULN occurred in 14 participants through Day 169 (2.1-6.7xULN); Most occur soon after first nivolumab and most revert to <2x ULN by Day 85.

*Geometric mean (95% CI) ǂ Participants received a Day 85 dose only if HBsAg ≥10 IU/mL; 7 of 18 in Groups 2 and 3 received the Day 85 dose.

Interim data, presented at EASL 2024.

HBV003: Undetectable HBsAg Reached in Some Participants

Individual HBsAg declines in participants with HBsAg ≤200 IU/mL at baseline



- **19% of participants became HBsAg-undetectable, across all groups** (n=4/21)**.**
  - 2 cases have maintained this for **≥16 weeks.**
- **67% had HBsAg <10 IU/mL** at Day 169 or later (n=14/21) .
- **76% participants were eligible for NUC discontinuation** (n=16/21)**.**
  - 7 of these discontinued NUCs.
  - 5 remain off NUCs, **up to 44 weeks post-discontinuation** in 1 case.
- Post-dose T cell responses were observed across the three HBV antigens.

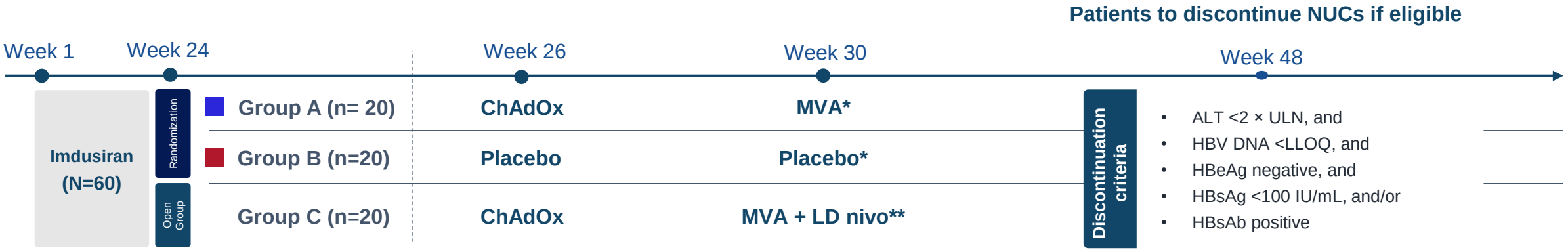
Interim data, presented at EASL 2024.

AB-729-202: Phase 2a – Collaboration with Arbutus

Arbutus BIOPHARMA

Imdusiran (RNAi) + VTP-300 +/- low-dose nivolumab (N=60)

Trial expanded in Q4 2022 to include an arm with low-dose nivolumab



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.

LD: Low-dose **ALT**: Alanine aminotransferase; **LLOQ:** lower limit of quantitation; **ULN**: upper limit of normal.
* 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+nivo to be dosed at Week 38, if patients have HBsAg ≥10 IU/mL at Week 34.

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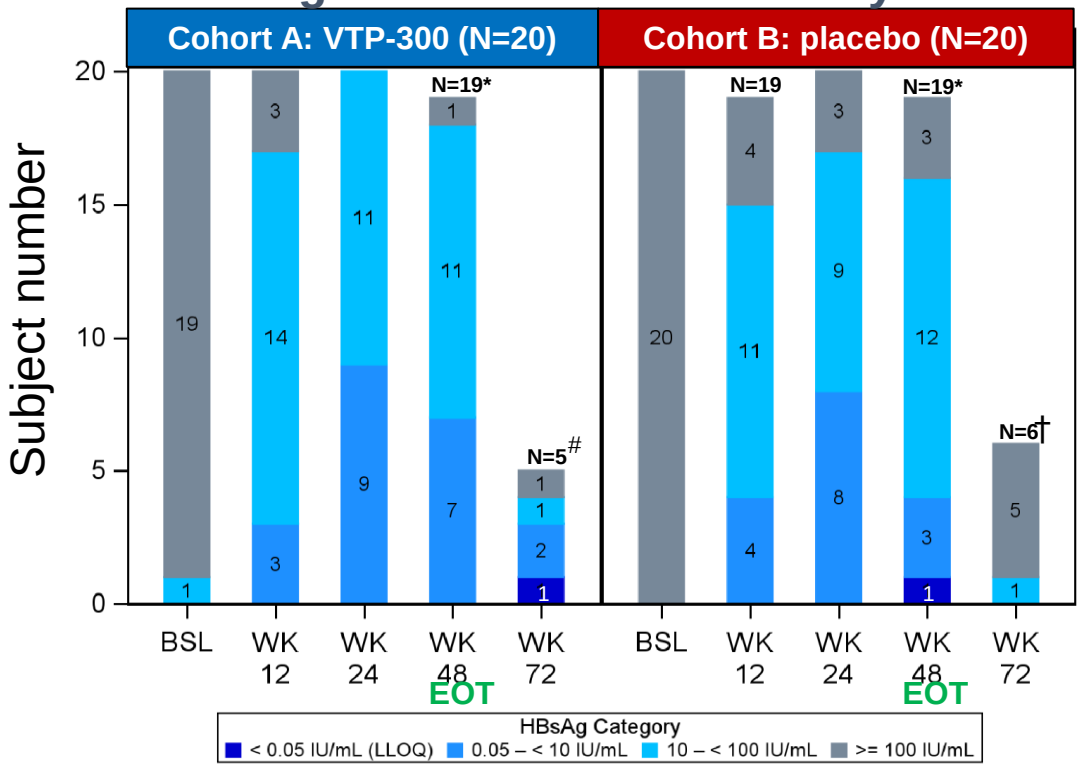
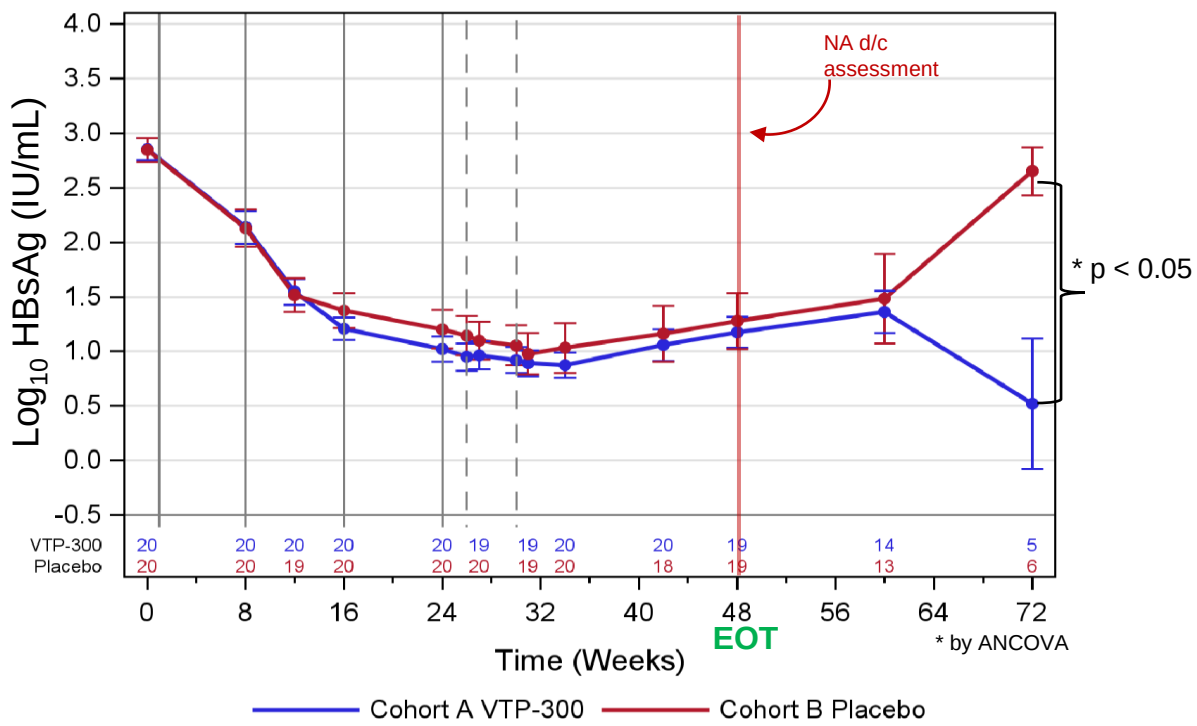
AB-729-202: VTP-300 Maintained Lower HBsAg Levels

- More subjects achieved HBsAg thresholds of <100 IU/mL and <10 IU/mL **when administered VTP-300** vs placebo.
- At Week 72 (N=11), there was a **significant observed difference in HBsAg levels between the groups.**

HBsAg Thresholds Achieved by Visit



Mean [SE] Log_{10} HBsAg Level by Visit

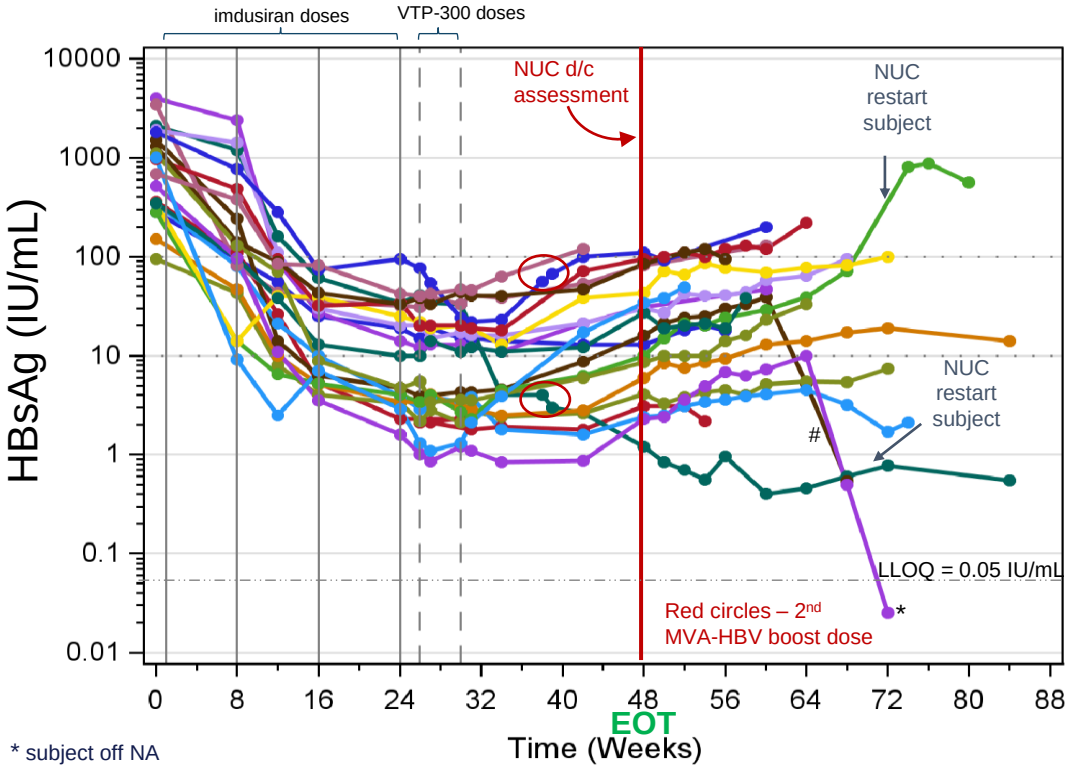


BSL=baseline; WK=week; EOT=end of treatment; * 2 subjects did not reach timepoint by datacut;
# N=2 and † N=1 subject censored after Week 60 visit due to NA restart

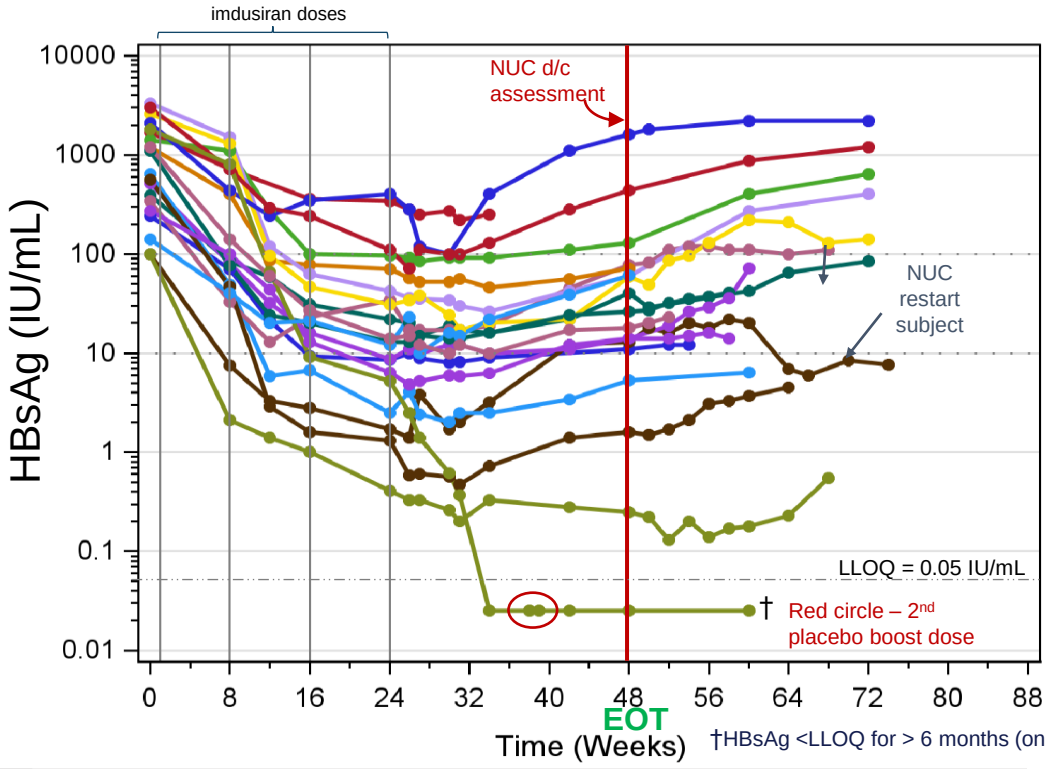
Interim data, presented at EASL 2024.

AB-729-202: VTP300 Maintained Lower HBsAg Levels Over Time

Group A (VTP-300) Individual Subject HBsAg Declines



Group B (placebo) Individual Subject HBsAg Declines



* subject off NA therapy reached HBsAg <LLOQ at W72.
# subject off NA therapy with > 1.5 log_{10} decline between W60 and W68.

†HBsAg <LLOQ for > 6 months (on NUC therapy).

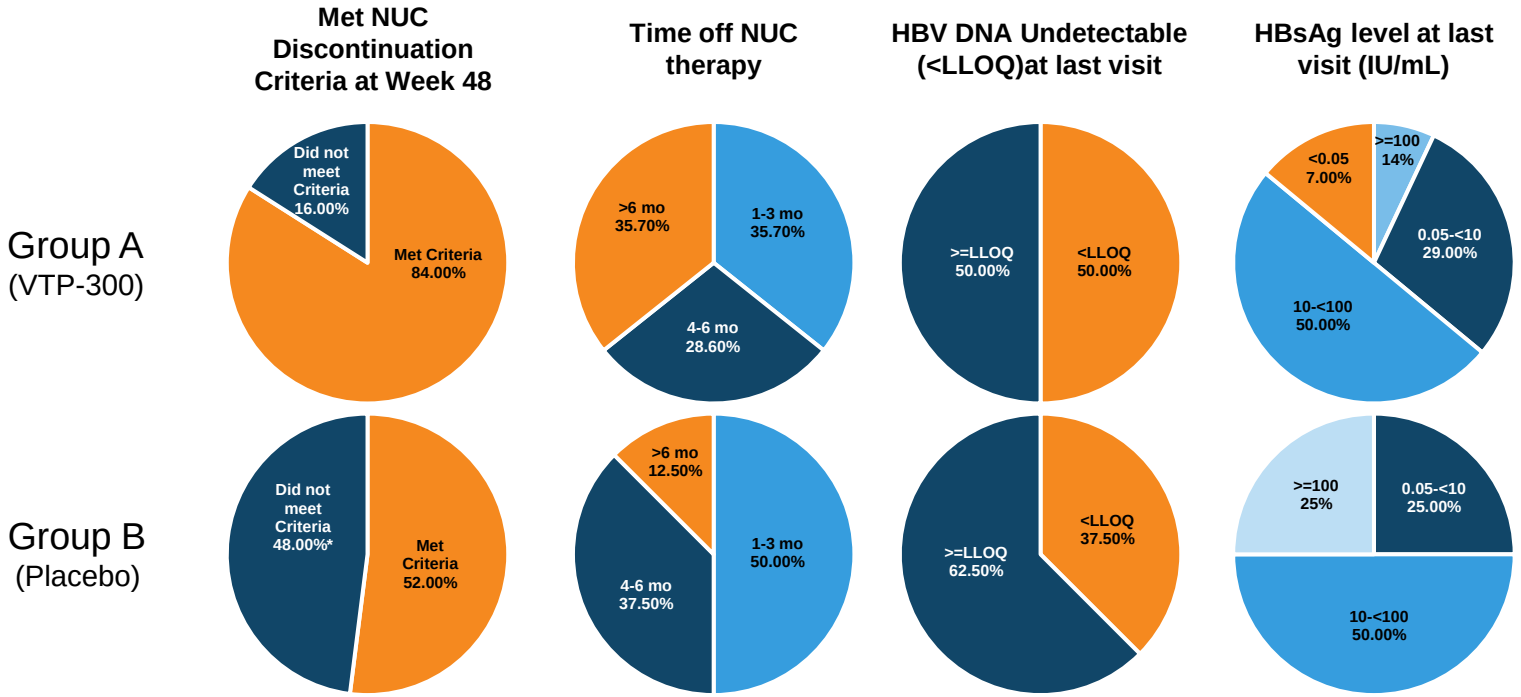
More subjects on **VTP-300 have maintained low HBsAg levels after end of treatment** (Wk 72):

	HBsAg <100 IU/mL N, (%)		HBsAg <10 IU/mL N, (%)		HBsAg <LLOQ N, (%)	
Study Wk	VTP-300Δ	PBO	VTP-300Δ	PBO	VTP-300Δ	PBO
Week 72	4/5 (80)	1/6 (16.7)	3/5 (60)	0/6 (0)	1/5 (20)	0/6 (0)

Δ subjects who remain off NUCs at Week 72.

Interim data, presented at EASL 2024.

AB-729-202: VTP-300 Group More Likely to Meet NUC Discontinuation Criteria



* 3 subjects were both HBeAg+ and had HBsAg >100 IU/mL.

- **More subjects with VTP-300 (84%) met NUC discontinuation criteria** vs. placebo:
  - **More VTP-300 subjects have maintained HBV DNA undetectable (50%)** than placebo subjects (38%).
  - **1 VTP-300 subject reached HBsAg undetectable at Week 72** after > 2 log decline between Week 64 and 72, another has > 1 log decline between Week 60 & 68.

- Imdusiran and VTP-300 was generally well-tolerated when administered sequentially.
- No SAEs or treatment discontinuations have been reported.
- Most common treatment-related TEAEs in 2 or more subjects (all Grade 1 or 2):
  - VTP-300: injection site-related (redness, pain or reaction in 3 events in 2 subjects).
  - Imdusiran: injection site-related (bruising or swelling in 2 subjects), ALT increased in 2 subjects.

Interim data, presented at EASL 2024.

VTP-300 Interim Trials Overview

HBV003 – Phase 2b

- VTP-300 and LD nivolumab treatment generally **well-tolerated in all groups**.
- In patients with HBsAg baseline <200 IU/mL and Day 169 visit across all groups, a **≥0.5 log HBsAg reduction** was observed **in 62% (13) of participants,** with **19% (4)** becoming **HBsAg undetectable.**
- **76%** of participants were eligible **for NUC discontinuation**
- **5** of the 7 patients who discontinued **are still off NUC therapy,** up to 44 weeks in 1 case
- Preliminary **data support administration of additional doses of VTP-300** that we believe have the potential to sustain strong T cell responses to enhance rates of HBsAg loss.

AB-729-202 – Phase 2a[1]

- Imdusiran followed by VTP-300 was generally **well-tolerated.**
- **Imdusiran and VTP-300** led to **maintenance of lower HBsAg levels** during the follow-up period.
- **NUC discontinuation** was achieved in the majority of patients, with **significantly more** meeting the discontinuation criteria **in the VTP-300 group**.
- **1** of 19 subjects receiving VTP-300 have reached **HBsAg undetectable** to date, and a second subject has had >1.5 log10 decline in the last 8 weeks of follow-up off NUC.

Next anticipated presentation for both trials:
Q4 2024

Interim data, presented at EASL 2024.

VTP-1000

Immune Tolerance Program

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Guiding the immune system to cure disease

Celiac Disease is a Serious Autoimmune Disease with No Effective Treatment Except Strict Gluten-Free Diet

VTP-1000 aims to restore immune balance in a precise, celiac-specific manner.

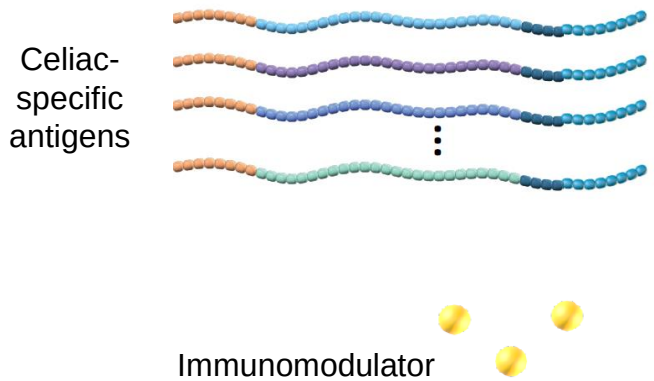
- Celiac disease is a **chronic autoimmune disorder** triggered by gluten protein that **damages the small intestine** and can **cause long-lasting digestive problems**.

VTP-1000 is designed to balance the immune response: inducing gluten-specific Tregs and reducing gluten-specific Teff response.

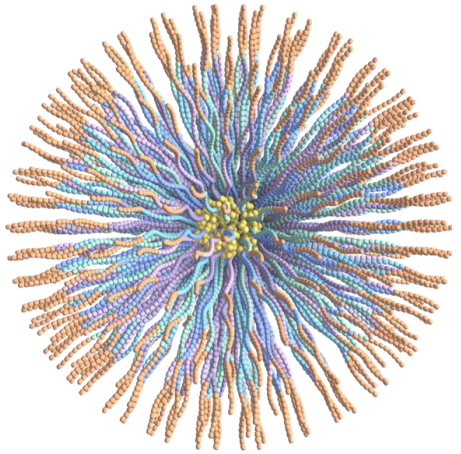
- **VTP-1000 aims to induce tolerance** to gluten protein and allow people with celiac disease to consume a normal diet without having to avoid gluten.

0	Current FDA approved treatments.
~1%	Of people in Western countries have Celiac Disease.[1]
~60%	Of patients are not able to adhere to a strict Gluten-Free Diet. [2]
~20%	Of patients are Non-Responsive Celiac Disease patients. [3]

VTP-1000 Components



VTP-1000



[1] Al-Toma, A., et al. (2019) United European Gastroenterol J. 7(5), 583-613.
[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.

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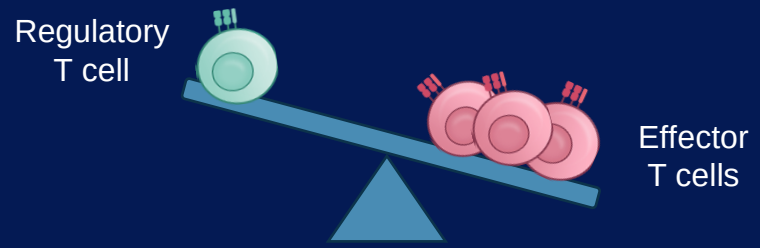
SNAP-Tolerance Immunotherapy (TI) Platform

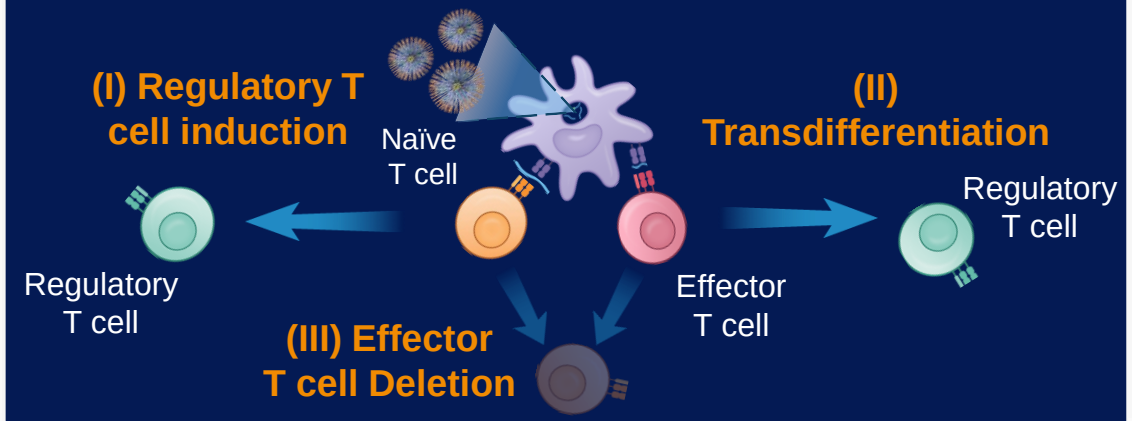
SNAP-TI Aims to Restore Immune Tolerance

Autoimmune diseases occur due to an imbalance between antigen-specific regulatory T cells and proinflammatory effector T cells



Current therapeutic approaches including **broad immunosuppression** do not address underlying disease and can include severe side effects

SNAP-TI aims to restore Treg/Teff balance in a precise, disease-specific manner



SNAP-TI Key Design Features

Optimal design
- Self assembling 20nm NP
- Large loading capacity of a broad range of antigens

Lymph Node Targeting
- Can optimally access APCs
- Key for T cell immunity

Immunomodulator
- Enhanced Treg/Teff ratio
- Improved safety: prevents antigen associated toxicity

IM/SQ ROA
- Key for patient compliance

NP: nanoparticle; **APC**: antigen presenting cells**; IM/SQ ROA:** Intramuscular/Subcutaneous route of administration.

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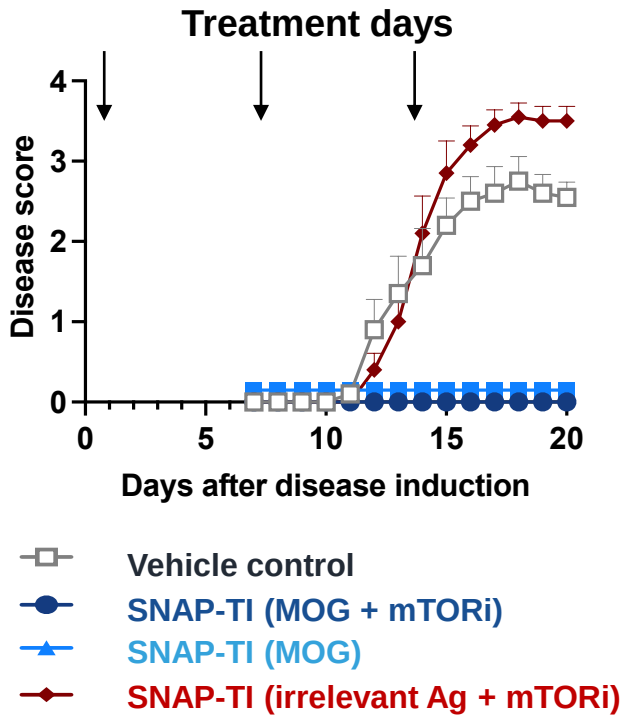
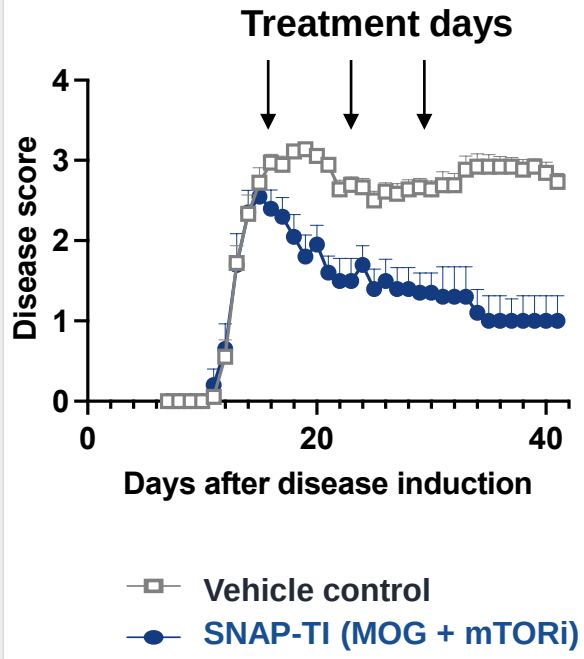
SNAP-TI Ameliorates Disease by Increasing Treg:Teff Ratio

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

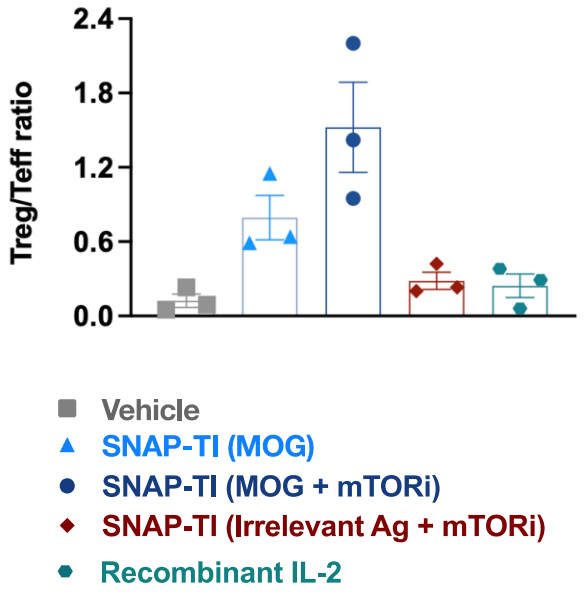
Protection against disease onset[1]



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

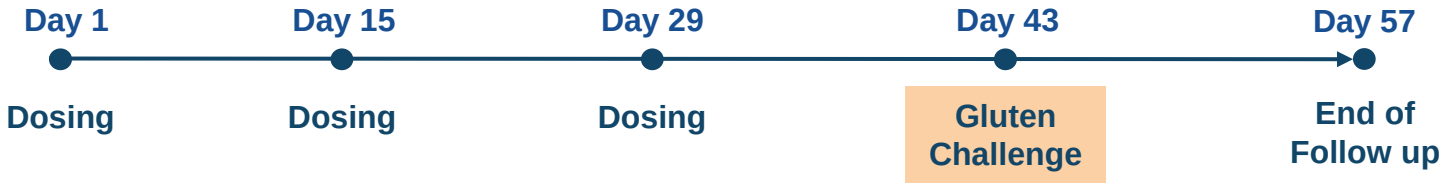
MS: Multiple sclerosis
T1D: Type 1 diabetes

GLU001: Phase 1 – Study Design

Objective: Evaluating safety and tolerability of single and multiple doses of VTP-1000

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.
- 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.

Key Secondary Endpoint

- Pharmacokinetic parameters.

Next anticipated milestone:

First Patient, First Dose: Q3 2024

Study Reference: NCT06310291

BARINTHUS

Versatile SNAP-TI Platform Enabling a Growing Pipeline

VTP-1000 Supporting Package

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

Key Design Features

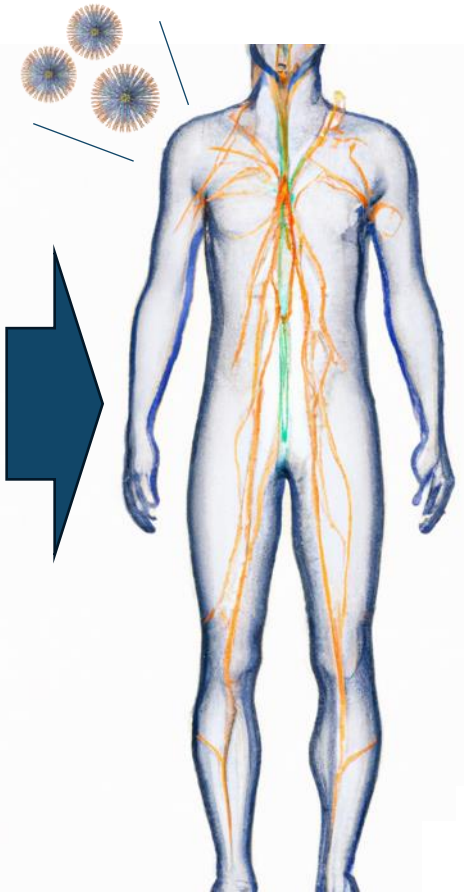
Optimal design
- Self assembling 20nm nanoparticle.
- Large loading capacity of a broad range of targetable antigens.

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.

IM/SQ ROA
- Key for patient compliance.

Broad Applicability



Broad range of Disease-associated antigens
e.g., foreign, self, cryptic, PTMs

Various Disease mechanism
e.g., CD4-, CD8-, B cell-mediated

Different Diseased tissue
e.g., GI, pancreas, CNS, skin

Large targetable Indication diversity
Celiac, Vitiligo, PBC, T1D, transplant, RA, …

APC: antigen presenting cells**; IM/SQ ROA:** Intramuscular/Subcutaneous route of administration; **PTMs**: post-translational modifications; **PBC**: primary biliary cholangitis; **RA**: rheumatoid arthritis.

BARINTHUS

Company Highlights

Guiding the immune system to cure disease

Financial Overview and Catalysts

Guiding the immune system to cure disease

Current cash position

$130 million[1] as of March 31, 2024.

No debt or outstanding warrants.

Estimated cash runway into Q2 2026[3].

Expected near-term catalysts[2]

Q3 2024 ▶ **VTP-1000 (Celiac)**: Phase 1 GLU001 FPFV

Q4 2024 ▶ **VTP-300 (HBV)**: Phase 2b interim analysis & Phase 2a interim results (Q4 2024)

[1] Including cash, cash equivalents and restricted cash as of March 31, 2024, as reported on Form 10-Q on May 13, 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.

BARINTHUS

VTP-200

Human Papillomavirus (HPV) Therapeutic

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Guiding the immune system to cure disease

VTP-200

Persistent HPV Infection Remains a Significant Public Health Problem[1]

We are targeting persistent HPV infection – which can lead to precancerous lesions and cervical cancer[1]

HPV is the most common sexually transmitted viral infection in the world[1]

Cervical cancer was the **4th most common** cancer in women globally in 2020.[2] **>95% of cervical cancer** is caused by HPV.[2]

~291 million women worldwide are infected with HPV[4] **>3.6M diagnosed annually** with persistent high-risk cervical HPV in US and across 5EU.[6]

Cervical cancer in the US[3]:

~4,000 deaths per year even with screening & treatment

~12,000 cases per year

Cervical cancer worldwide[2]:

~342,000 deaths per year

~604,000 cases per year

VTP-200 aims to address high unmet need for patients with persistent HPV infection

- While HPV prophylactic vaccines are effective at preventing infection, there are **low vaccination rates** exist in many regions of the world and these vaccines **do not eliminate existing infections**.[1]
- Standard of care is **monitoring and excision** once high-grade lesions develop.[1]
- Currently **no treatment** before high-grade lesions develop.[1]
- People with HPV infections report **cancer-related fear**, **worry over lack of treatment** and HPV being a **'ticking time bomb'**.[5]

[1] WHO, HPV vaccines: WHO position paper, 2022
[2] WHO, Cervical Cancer
[3] Center for Disease Control
[4] Lancet Infect Dis. 2007 Jul;7(7):453-9. 10.1016/S1473-3099(07)70158-5
[5] Psychooncology. 2021 Jan; 30(1): 84–92. doi: 10.1002/pon.5540
[6] Barinthus Bio, Data on File

APOLLO (HPV001) – Phase 1b/2 Study Design

Lead-in Phase: (N=9)

Objective: Evaluating VTP-200 immunogenicity and safety

Regions	EU	UK
Group A (n=3)	ChAdOx 2 x 10^8 vp MVA 1 x 10^7 pfu	
Group B (n=3)	ChAdOx 2 x 10^9 vp MVA 1 x 10^7 pfu	
Group C (n=3)	ChAdOx 2 x 10^{10} vp MVA 1 x 10^8 pfu	

Main Phase*: VTP-200 (N=99) – Complete

Objective: Evaluating safety data, efficacy data, immunogenicity, dose-response

Group	Day 1	Day 29
1 (n=16)	ChAdOx 2 x 10^9 vp	MVA 1 x 10^7 pfu
2 (n=16)	ChAdOx 2 x 10^{10} vp	MVA 1 x 10^7 pfu
3 (n=8)	ChAdOx 2 x 10^8 vp	MVA 1 x 10^8 pfu
4 (n=8)	ChAdOx 2 x 10^9 vp	MVA 1 x 10^8 pfu
5 (n=16)	ChAdOx 2 x 10^{10} vp	MVA 1 x 10^8 pfu
6 (n=32)	Placebo	Placebo

60 of the main phase participants will be part of an immunogenicity sub-study

Inclusion Criteria

- High risk HPV positive for >6 months and low-grade cervical lesions.

Primary Endpoint

- Safety: incidence of AEs and SAEs.

Secondary Endpoints

- Efficacy.
- Dose determination for further studies.

Study Outputs

- **Efficacy Data:** % clearance of high-risk HPV and cervical lesions evaluated at 12 months.

AE: adverse events, SAE: serious adverse events.
*All groups open simultaneously
Study Reference: NCT04607850

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APOLLO Trial Primary Endpoint Met - Analysis Ongoing

APOLLO (HPV001):
Phase 1b/2 Topline Final Data

- **Primary endpoint met:** VTP-200 was generally well-tolerated and administered with no treatment-related grade 3 or higher unsolicited AEs and no treatment-related SAEs.
- **Highest high-risk (hr)HPV clearance rate (60%) observed in Group 2**, which included the highest dose of ChAdOx.
- **Highest cervical lesion clearance rate (67%) observed in Group 2 and Group 5**, both received the highest dose of ChAdOx.
- Pooled data from the five active dose groups showed no significant improvement in hrHPV clearance or cervical lesion clearance rates in comparison to the placebo group.

		Month 12 hrHPV clearance	Month 12 Cervical lesion clearance*
Group	**1**	12%	40%
	2	**60%**	**67%**
	3	11%	20%
	4	33%	33%
	5	36%	**67%**
	Placebo	33%	39%

Next anticipated readout:

Analysis - Ongoing

AE: adverse events, SAE: serious adverse events.
* in participants with both reported lesions at screening and visualization of the cervical transformation zone at 12 months (n=57).

BARINTHUS

VTP-850

Prostate Cancer Therapeutic

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Guiding the immune system to cure disease

Prostate Cancer Remains a Health Priority with High Diagnosis and Recurrence Rates

VTP-850 is a next generation ChAdOx-MVA multi-antigen product candidate designed to induce disease-relevant cytotoxic T cells and prevent advancement to metastatic disease.

Prostate cancer is the **4th most common cancer** diagnosis in the world.[1]	Prostate cancer worldwide[3]:
1 in 8 men will be diagnosed with prostate cancer in their lifetime.[2]	**~1.4M** new cases diagnosed.
20-40% of patients with non-metastatic prostate cancer experience biochemical recurrence after local therapy (e.g., prostatectomy).	**~375K** deaths per year.

VTP-850 is a novel immunotherapy candidate aiming to prevent advanced disease.

- Biochemical recurrence is indicated by rising PSA levels with no evidence of disease on conventional imaging, meaning the disease was not cured by local therapy.[4]
- Treatment options for patients with biochemical recurrence include systemic therapies such as hormonal or chemotherapy, resulting in toxicity and side effects.

[1] WHO, 2022.
[2] American Cancer Society, 2023
[3] World Cancer Research Fund International. 2020.
[4] Simon Ni, et al. Am Soc Clin Oncol Educ Book. 2022.

PSA: Prostate Specific Antigen.
Study Reference: NCT05617040

VTP-800 First-Generation Single-Antigen Immunotherapy Showed Meaningful Reduction in PSA

Phase 2a ADVANCE: VTP-800 + Anti-PD-1 in mCRPC

Study in metastatic castration-resistant prostate cancer (mCRPC) patients using ChAdOx-MVA plus nivolumab

VTP-800 antigen: 5T4

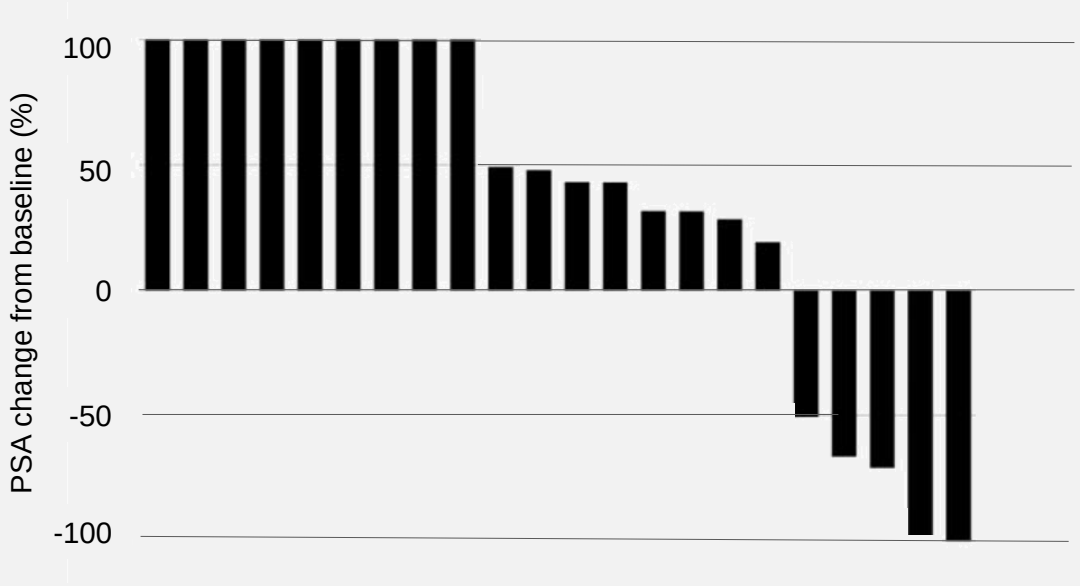
Target patient population: 23 mCRPC patients enrolled.

Efficacy data readouts:

- >50% reduction in PSA compared to baseline was seen in 22% of patients (5/23).
- Historical comparator with a PSA response to anti-PD-1 alone is ~9%.[1]
- 3 patients with PSA response also had measurable tumors and achieved clinical responses.

Phase 2 ADVANCE:

Serum PSA Results[2]



mCRPC: metastatic castration-resistant prostate cancer; **PSA:** prostate-specific antigen.

[1] Antonarakis, E. et al. Journal of Clinical Oncology 2020

[2] Data courtesy of Prostate Cancer Vaccine Group, Jenner Institute, UO. mCRPC: Metastatic Castrate Resistant Prostate Cancer

BARINTHUS

PCA001 – Phase 1 Study of VTP-850 Design

Ongoing Phase 1 study for Multi-Antigen VTP-850, a Next-Generation Candidate.

Phase 1: Lead-in Phase

VTP-850 (N=15-18)

Objective: Dose finding for Phase 2, evaluation of safety and immunogenicity.

VTP-850 antigens:

- **5T4**
- **PSA**
- **PAP**
- **STEAP**

Cohort 1	**Low dose**	**(n=3-6)** IM/IM
Cohort 2	**Full dose**	**(n=6)** IM/IM
Cohort 3	**Full dose**	**(n=6)** IM/IV

Inclusion Criteria

- Hormone sensitive prostate cancer.
- Biochemical recurrence after definitive local therapy.
- No metastases by standard radiography.

Primary Endpoints

- Safety: incidence of AEs and SAEs.

Secondary Endpoints

- PSA response, durability of PSA response, duration of PSA response, metastasis-free survival, time to metastasis, time to start of androgen deprivation therapy.

* Including 6 participants from Phase 1. ** If 4 or more of the 25 participants at the RP2R (including the Phase 1 participants who received the same dose regimen) have a PSA response, Stage 2 will be opened to enrolment of up to 100 additional participants.
⁺ Dosing dependent on outcome of Phase 1.
Study Reference: NCT05617040

Next anticipated milestone:

Phase 1 data: 2025

Partnered Pipeline

Guiding the immune system to cure disease

Barinthus Bio's Partnered Pipeline

Program	Product Candidate		Partner	Preclinical	Phase 1	Phase 2	Phase 3	Barinthus Bio Rights	Status/Anticipated Upcoming Milestones
Cancer Programs	VTP-600	**NSCLC/Squamous Esophageal cancer therapeutic** in combo. with checkpoint inhibitor + chemo	Ludwig Cancer Research; Cancer Research UK					**Worldwide** (76% of Sub.)	**Phase 1/2a ongoing**
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

Guiding the Immune System to Cure Disease

Thank You

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