VBI VACCINES

ACTIVATING THE POWER WITHIN

Corporate Overview

NASDAQ : VBIV

July 2023

Forward-Looking & Safe Harbor Statements

Certain statements in this presentation that are forward-looking and not statements of historical fact are forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and are forward-looking information within the meaning of Canadian securities laws (collectively "forward-looking statements").

The Company cautions that such statements involve risks and uncertainties that may materially affect the Company's results of operations. Such forward-looking statements are based on the beliefs of management as well as assumptions made by and information currently available to management.

Actual results could differ materially from those contemplated by the forward-looking statements as a result of certain factors, including but not limited to, the impact of general economic, industry or political conditions in the United States or internationally; the impact of the COVID-19 pandemic and the continuing effects of the COVID-19 pandemic on our clinical studies, manufacturing, business plan, and the global economy; the ability to successfully manufacture and commercialize PreHevbrio/PreHevbri; the ability to establish that potential products are efficacious or safe in preclinical or clinical trials; the ability to establish or maintain collaborations on the development of pipeline candidates and the commercialization of PreHevbrio/PreHevbri; the ability to obtain appropriate or necessary regulatory approvals to market potential products; the ability to obtain future funding for developmental products and working capital and to obtain such funding on commercially reasonable terms; the Company's ability to manufacture product candidates on a commercial scale or in collaborations with third parties; changes in the size and nature of competitors; the ability to retain key executives and scientists; and the ability to secure and enforce legal rights related to the Company's products.

A discussion of these and other factors, including risks and uncertainties with respect to the Company, is set forth in the Company's filings with the SEC and the Canadian securities authorities, including its Annual Report on Form 10-K filed with the SEC on March 13, 2023, and filed with the Canadian security authorities at sedar.com on March 13, 2023, as may be supplemented or amended by the Company's Quarterly Reports on Form 10-Q.

Given these risks, uncertainties and factors, you are cautioned not to place undue reliance on such forward-looking statements, which are qualified in their entirety by this cautionary statement.

All such forward-looking statements made herein are based on our current expectations and we undertake no duty or obligation to update or revise any forward-looking statements for any reason, except as required by law.

Business Development Update : Hepatitis B Partnership with Brii Bio Expanded for up to $437M + Royalties

- Initial license and collaboration agreement with Brii Bio announced in December 2018 for the development of VBI-2601 (Tx HBV) in Greater China

- As a result of the initial Phase 2 clinical data from the combination study of VBI-2601 and an HBV-specific siRNA announced in February 2023, the partnership has expanded to include:
  - Worldwide license and collaboration agreement for VBI-2601 (Tx HBV)
  - APAC license and collaboration agreement for PreHevbri (Px HBV)

- In consideration for the expanded partnership, VBI is eligible to receive:
  - **Upfront :** $15M, including an equity investment of approximately $3M, contingent upon achievement of near-term milestones
  - **Regulatory and Commercial Milestones :** Up to $422M
  - **Royalties :** Double-digit royalties on Net Sales in the Licensed Territories for both VBI-2601 and PreHevbri

About VBI Vaccines

VBI Vaccines is a biopharmaceutical company driven by immunology in the pursuit of powerful prevention and treatment of disease

Our product...

PreHevbrio
Hepatitis B Vaccine (Recombinant)

Approved by the FDA on November 30, 2021[1]

Our pipeline...

... prioritizes both prevention and treatment of hepatitis B

Additional prophylactic & therapeutic candidates target:

- Glioblastoma (GBM)
- COVID-19, coronaviruses
- Cytomegalovirus (CMV)

Our locations...

Rehovot, Israel
Manufacturing Facility
Fully-owned GMP manufacturing facility for the production of HBV program

Ottawa, Canada
Research Operations
R&D headquarters and facility

Cambridge, MA, USA
Corporate Headquarters
Central location in biotechnology hub

[1]Subsequent marketing approvals received in 2022 for use in the EU/EEA/UK (PreHevbri®), and Canada (PreHevbrio®). The vaccine is also approved for use in Israel as Sci-B-Vac®.

Our Portfolio Targets Viruses with Both a Preventative and Therapeutic Application & Unmet Need

HEPATITIS B VIRUS (HBV)

Globally, as many as **350 MILLION** & In the U.S., as many as **2.2 MILLION**

PEOPLE ARE CHRONICALLY INFECTED WITH HBV

... with nearly **1 MILLION** ANNUAL DEATHS WW from HBV-related causes

The CDC estimates

67% of U.S. people with chronic HBV are UNAWARE of their infection status → INCREASING THE LIKELIHOOD OF TRANSMISSION

Even though HBV is a vaccine-preventable disease....

ONLY 30%

OF ADULTS ARE FULLY VACCINATED AGAINST HBV IN THE U.S., leaving the majority at risk of HBV infection

Sources: U.S. Centers for Disease Control and Prevention; Taal W, et al. 2014

CYTOMEGALOVIRUS (CMV)

While most CMV infections are "silent", it infects

1 IN EVERY 2 PEOPLE

... and may cause severe infections in newborns (congenital CMV) and in solid organ or bone marrow transplant recipients

CMV is also associated with several solid tumors, including GLIOBLASTOMA (GBM), which is among the most common and aggressive malignant brain tumors

12,000
U.S. NEW CASES/YEAR

Median Overall Survival (OS)

14 MO.
PRIMARY GBM

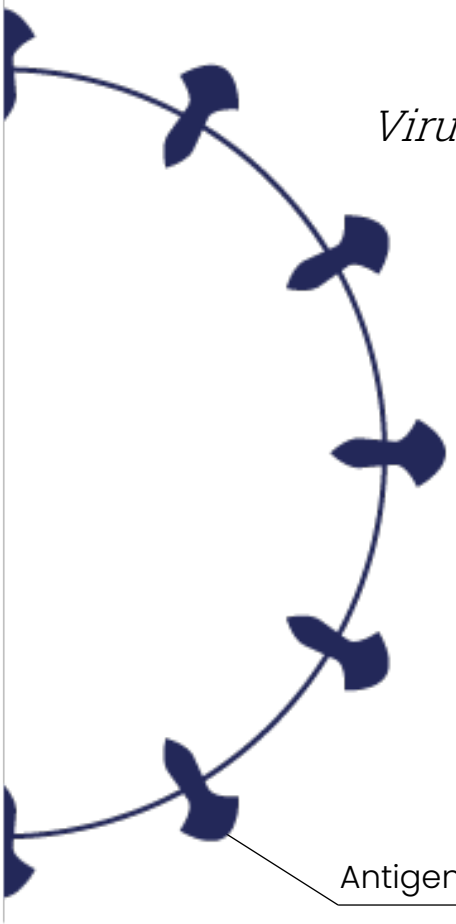
8 MO.
RECURRENT GBM

COVID-19 & CORONAVIRUSES

"Chasing" COVID-19 variants is likely to be an inefficient and ineffective way to manage COVID-19 and other Coronaviruses long-term

New vaccines capable of eliciting BROADER and MORE DURABLE Immune responses are needed

Our Technology :
The Science of Virus-Like Particles (VLPs)

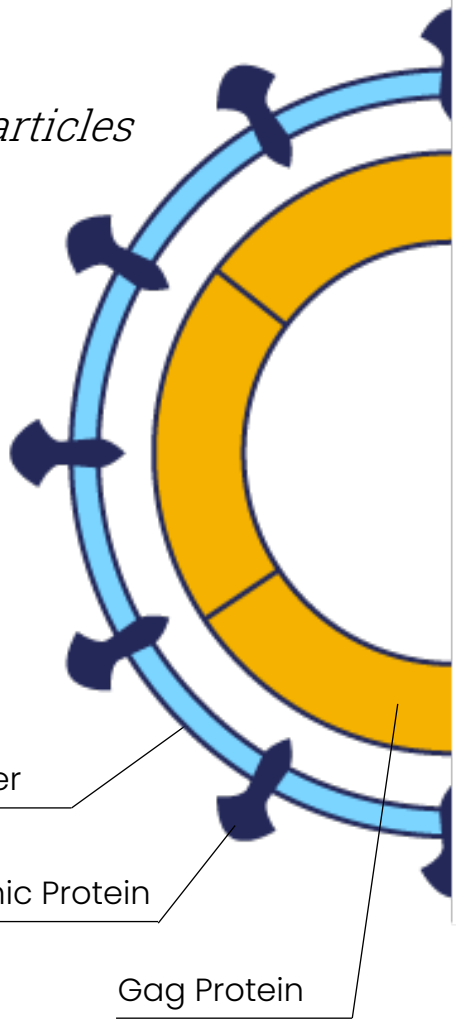


VLPs
Virus-Like Particles

- Sub-unit vaccines with no infectious material
- VLPs mimic the natural presentation of viruses
- Limited targets, however, as only a few antigens self-assemble into orderly VLP structures (incl. HBV surface antigens)

eVLPs
Enveloped Virus-Like Particles

- eVLPs expand the list of potentially viable targets by providing a stable core (Gag protein) and a lipid bilayer
- Flexible and customizable
- Highly immunogenic with demonstrated safety profile



VBI's pipeline programs consist of both self-assembling VLP candidates and eVLP candidates

VBI's Portfolio : Focused on Both Sides of the Fight

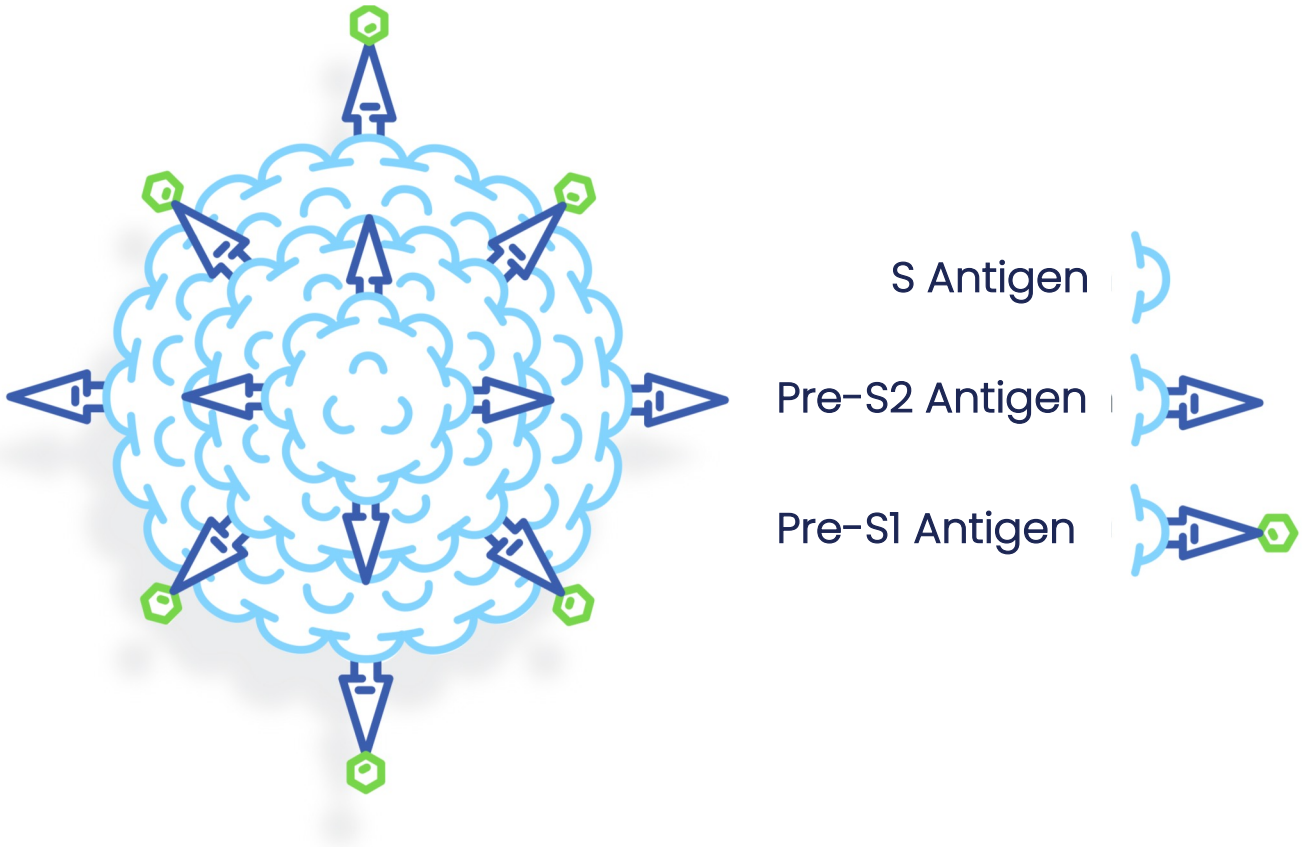
Disease	Name/Program	*Tech.*	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Hepatitis B							
Prevention	PreHevbrio[1,2,3,4] Hepatitis B Vaccine (Recombinant)	*VLP*					
Treatment	VBI-2601	*VLP*					
Cytomegalovirus (CMV) & CMV-Associated Tumors							
Prevention	VBI-1501	*eVLP*					
Treatment (GBM)	VBI-1901	*eVLP*					
Treatment (Other CMV+ Tumors)	Undisclosed	*eVLP*					
Prevention of Other Viral Targets							
COVID-19 & Coronaviruses	VBI-2901 (multivalent)	*eVLP*					
COVID-19 (Ancestral Strain)	VBI-2902 (monovalent)	*eVLP*					
COVID-19 (Beta Variant)	VBI-2905 (monovalent)	*eVLP*					
COVID-19 & Coronaviruses	Undisclosed (multivalent)	*eVLP*					
Zika	VBI-2501	*eVLP*					

[1]Approved for use in the U.S. for the prevention of infection caused by all known subtypes of hepatitis B virus in adults 18 years of age and older
[2]Approved for use in Israel, under the brand name Sci-B-Vac®, for active immunization against hepatitis B virus (HBV) infection
[3]Approved for use in the E.U., EEA, and U.K. under the brand name PreHevbri™ [Hepatitis B vaccine (recombinant, adsorbed)] for active immunisation against infection caused by all known subtypes of the hepatitis B virus in adults
[4]Approved for use in Canada for active immunization against infection caused by all known subtypes of hepatitis B virus in adults 18 years of age and older


PreHevbrio
Hepatitis B Vaccine (Recombinant)

PreHevbrio is the Only 3-Antigen HBV Vaccine

PreHevbrio is scientifically differentiated from other HBV vaccines – expressing the three hepatitis B surface antigens (S, pre-S1, and pre-S2), and manufactured in mammalian cells (vs. yeast)



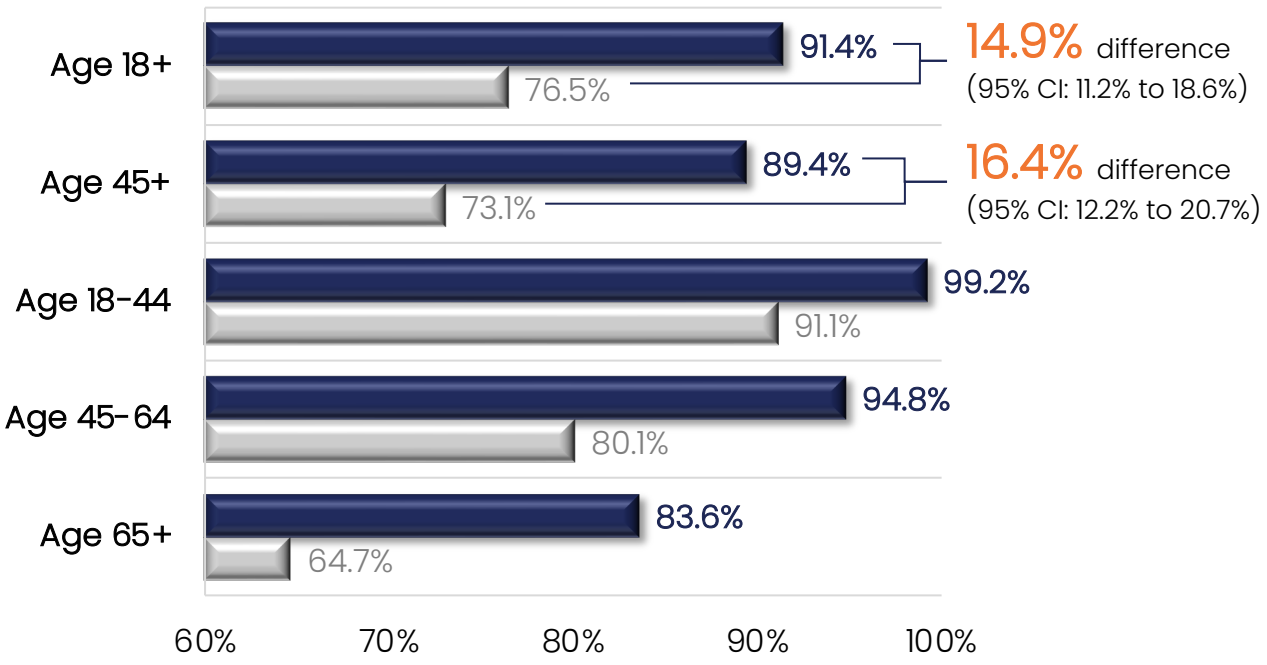
The Pre-S1 and Pre-S2 proteins serve important roles in the viral invasion of hepatocytes, and in viral infection, viral assembly, viral replication, and stimulation of immune responses in the body

More Adults Achieved Seroprotection with PreHevbrio in Phase 3 Clinical Studies

PROTECT Phase 3 Study

2-arm safety and immunogenicity study
N=1,607 adults aged 18-90 years

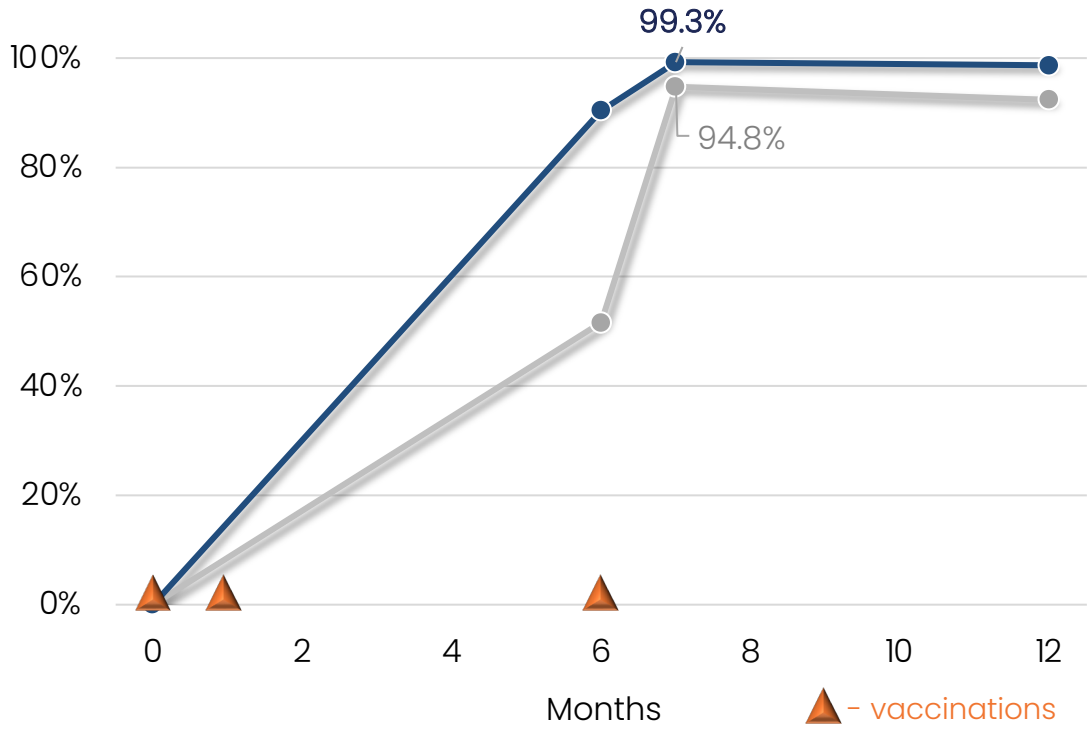
Seroprotection Rate (SPR)[1] at Day 196



CONSTANT Phase 3 Study

4-arm lot-to-lot consistency study
N=2,838 adults aged 18-45 years

Seroprotection Rate[1] (SPR) at Day 196



The integrated safety analysis demonstrated good tolerability with no unexpected reactogenicity. The most common adverse events in all age groups were injection site pain and tenderness, myalgia, and fatigue, all which generally resolved without intervention in 1-2 days

[1]Seroprotection rate defined as % of subjects who achieve anti-HBs titers ≥ 10 mIU/mL

Sources: PreHevbrio U.S. Full Prescribing Information; Vesikari T., et al. "Immunogenicity and safety of a 3-antigen hepatitis B vaccine vs a single-antigen hepatitis B vaccine: a phase 3 randomized clinical trial". *JAMA Network Open*. 2021; 4(10).

Public Health Bodies are Changing Tactics – Renewed Prioritization in the Fight to Eliminate HBV

- In April 2022, the CDC changed its adult HBV vaccination recommendation from risk-based for all adults to a universal recommendation for adults aged 19-59 years
- Recommendation change expected to greatly increase the number of adults vaccinated each year - ~70% of all adults in the U.S. are unvaccinated today

- Both Healthy People 2020 & the Viral Hepatitis Strategic Plan 2021-2025 include notable targets to:
  - Reduce the rate of acute HBV infection
  - Increase infection awareness
  - Reduce the rate of HBV-related deaths

- For the first time ever, the WHO called for elimination of viral hepatitis B by 2023, included in GHSS on viral hepatitis 2016-2021

U.S. Market & Q1 2023 Commercial Update

U.S. Adult HBV Vaccine Market

2019 (Pre-COVID): **4.8M doses**

Growing ~6% year over year

During COVID: ~53% decrease in total annual market

2022: **4.1M doses** ↑ 82% increase from 2020

Still ~15% below pre-COVID levels, but growing

The 2022 CDC Universal Recommendation is anticipated to increase the overall market, given ~70% of all adults in the U.S. are unvaccinated today

Q1 2023 Update

Q1 2023 Net Sales: **$0.5M** ↑ 90% increase from Q4 2022

Product sales are net of the provision for discounts, chargebacks, rebates, and fees – in the aggregate, these discounts reduced sales by $0.3M in Q1 2023, from $0.8M gross sales to $0.5M net sales

PreHevbrio is now available to purchase at:

- Three of the top 10 regional retail pharmacy networks
- U.S. Department of Veterans Affairs (VA)
- Federal Bureau of Prisons
- Certain military treatment facilities (MTFs)

Work is underway to expand the number of U.S. integrated delivery networks (IDNs) and hospital systems that offer PreHevbrio

No. of Customer Orders: ↑ 170% increase from Q4 2022

Coverage Rates:

Remain strong for the PreHevbrio-specific Current Procedural Terminology (CPT) code across Medicare, commercial, and state Medicaid plans

Sources: Internal data and company estimates

Commercialization & Milestones

Partnerships

United States Partner

- Includes VBI-dedicated leadership, medical, market access, and sales teams
- Syneos Health selected as partner for their robust and innovative commercialization experience and deep vaccine expertise, including successful partnerships with leading vaccine manufacturers

European Partner

- Partnership for the marketing, sales, and in-country distribution of PreHevbri® in initial European markets, including: the U.K., Sweden, Norway, Denmark, Finland, Belgium, and the Netherlands
- Valneva selected as a partner for their extensive vaccine commercialization experience, local knowledge, and relationships

APAC Partner

- Partnership for the development and commercialization of PreHevbri® in Asia Pacific countries
- Brii Bio partnership part of broader Hepatitis B collaboration

Recent & Upcoming Milestones

- ☑ Nov 2021 : U.S. FDA approval for PreHevbrio
- ☑ Feb 2022 : PreHevbrio included in CDC ACIP list of HBV recommended vaccines for adults
- ☑ May 2022 : European Commission approval for PreHevbri in European Union & European Economic Area
- ☑ May 2022 : UK MHRA approval for PreHevbri
- ☑ Sept 2022 : Partnership with Valneva for commercialization in certain European countries announced
- ☑ Dec 2022 : Health Canada approval for PreHevbrio
- ☑ June 2023 : PreHevbri launched in UK as part of partnership with Valneva
- ☑ June 2023 : Partnership with Brii Bio for APAC development and commercialization announced
- ❑ Q3 2023 : PreHevbri expected to be available in additional European countries beginning in Q3 2023
- ❑ By Year-End 2023 : PreHevbrio expected to be available in Canada

Hepatitis B (HBV)

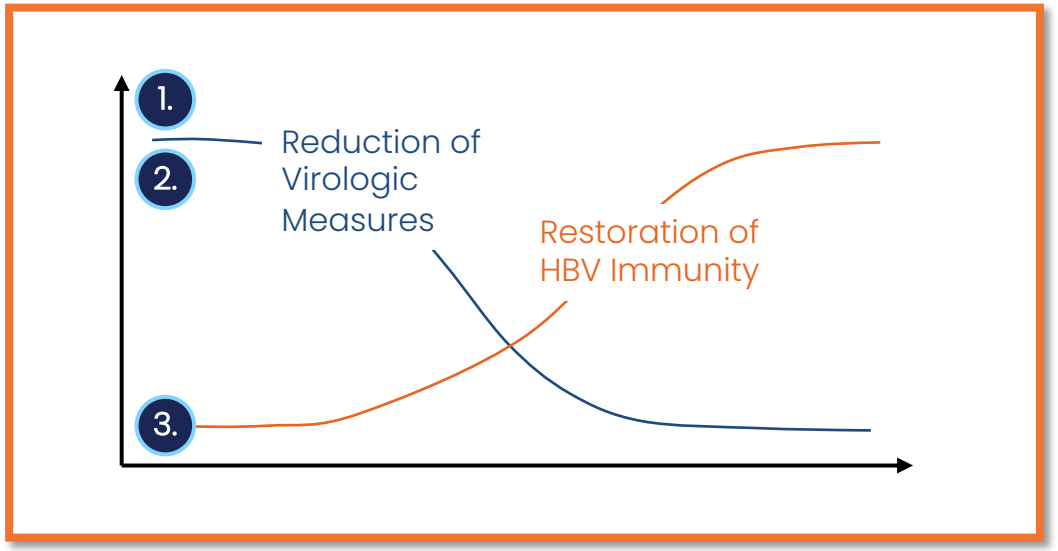
Therapeutic Candidate : VBI-2601

A Functional Cure for HBV is Within Reach… But It Will Likely Require a Combination Approach

A Functional Cure is defined as the achievement of undetectable HBV surface antigen (HBsAg) levels and sustained suppression of HBV DNA

A functional cure will likely require the achievement of :

1. Drive down hepatitis B virus (HBV) DNA
2. Drive down immuno-suppressive HBV S-antigen
3. Achieve long-term immunologic control



VBI-2601, an HBV-specific immunotherapeutic candidate, has a similar 3-antigen conformation to PreHevbrio, but has been reformulated to enhance B and T cell responses, with the aim of restoring defective HBV-specific humoral and cellular immunity in chronic HBV patients

VBI-2601 Development Plan & Status

Studies To-Date Designed and Executed in Partnership with Brii Biosciences

Two ongoing Phase 2 Studies

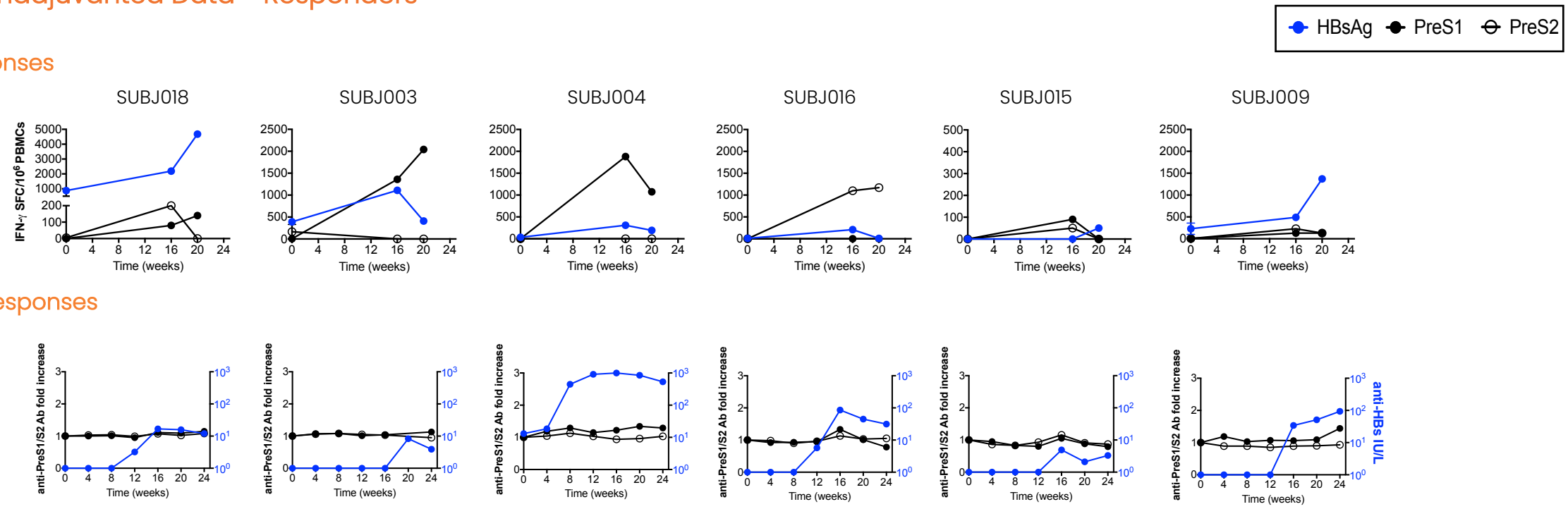
Stage of Development	Phase 1b/2a Study *Completed in 2021*	Phase 2 Combination Study *Initiated in April 2021*	Phase 2a/2b "Add-On" Study to Standard-of-Care in China *Initiated in April 2021*
Study Design & Data	• Two-part, multi-center, controlled, dose-escalation study (n=44) • Assessed VBI-2601 safety, tolerability, and immunologic antiviral activity in non-cirrhotic patients with chronic HBV • Conducted in Australia, New Zealand, Thailand, South Korea, Hong Kong, and China	• First-in-class study to evaluate safety and efficacy of VBI-2601 in combination with an HBV-targeting siRNA (BRII-835) • Multi-center study in Australia, New Zealand, Thailand, South Korea, Hong Kong, China, Singapore, and Taiwan • Enrollment of 90 adults aged 18-60 years with chronic HBV infection	• Two-part Phase 2 study designed to evaluate the clinical effect of adding VBI-2601 to existing standard of care therapy (PEG-IFN-α and Nrtl) in non-cirrhotic HBV patients • Expected enrollment of 120 subjects in China
	Data demonstrated VBI-2601 induced B cell and T cell responses and was well tolerated with no safety signals observed	Interim topline Phase 2 data presented in February 2023 at APASL	Interim topline results expected Q3 2023
	ANZCTR.org.au Identifier : ACTRN12619001210167	*ClinicalTrials.gov Identifier : NCT04749368*	*ChinaDrugTrials.org.cn Identifier : CTR20213100*

Phase 1b/2a Study Data : Proof of Mechanism Significant Restoration of Antibody & T Cell Responses

Complete dataset announced at the International Liver Congress 2021

- **Potent re-stimulation of T cell responses** to HBV surface antigens (S, Pre-S1, and Pre-S2) seen in:
  - 67% - Cohort B (n=6/9) – Low dose unadjuvanted
  - 78% - Cohort C (n=7/9) – low dose adjuvanted (IFN-α)
- **Boosting of antibodies** to HBV surface antigens observed in 44% (n=19/43) of evaluable patients

VBI-2601 Unadjuvanted Data - Responders



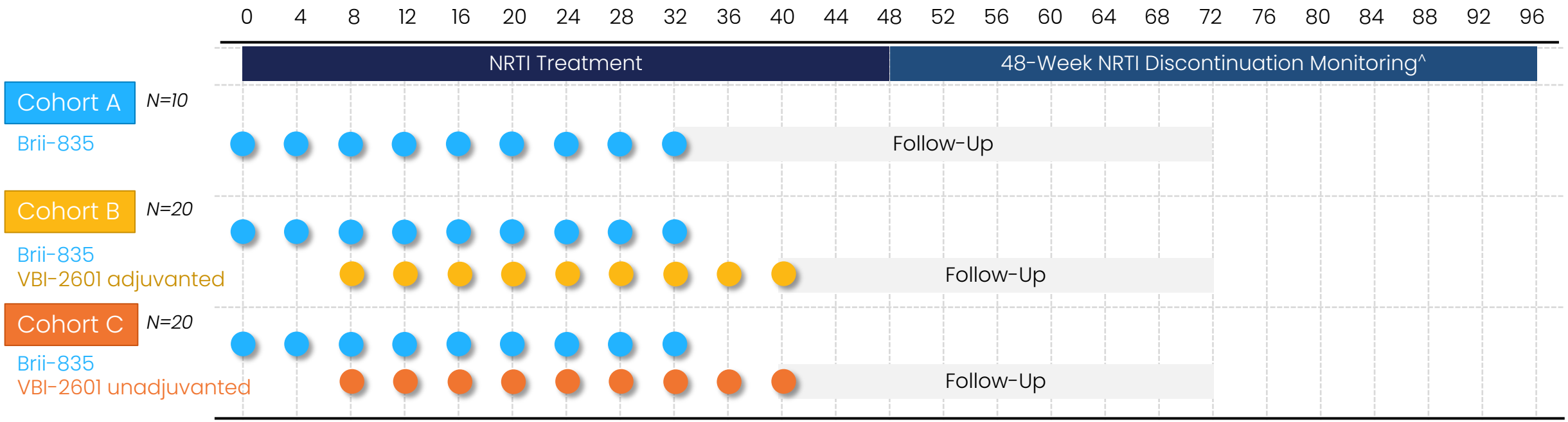
Sources: Brii Biosciences and VBI Vaccines Present Positive Data from Completed Phase 1b/2a Study on BRII-179 (VBI-2601) in Patients with Chronic Hepatitis B at the International Liver Congress 2021; June 23, 2021 (press release); additional data presented in ILC poster by Brii Bio.

Phase 2 Combination Study : Study Design

Study Details

Enrolled:
- Non-cirrhotic patients
- ≥ 12 months NRTI treatment
- HBV DNA < lower limit of quantification (LLOQ)

Subjects Randomized Across Three (3) Cohorts:
- Cohort A : BRII-835 (siRNA) only
- Cohort B : BRII-835 + VBI-2601 adjuvanted with IFN-α
- Cohort C : BRII-835 + VBI-2601 unadjuvanted



BRII-835 100mg via subcutaneous injection (SC) | VBI-2601 (BRII-179) 40µg ± co-adjuvant IFN-α 3 MIU via intramuscular injection (IM)

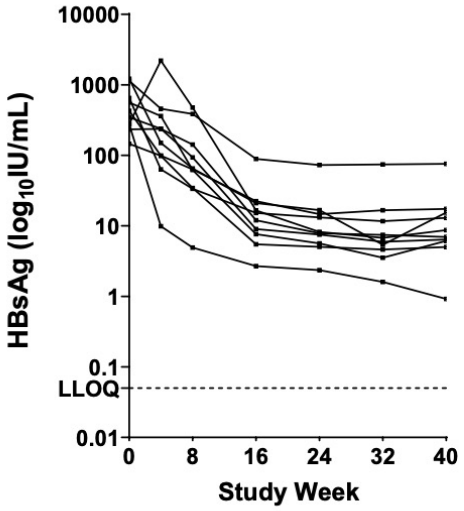
^ Participants meeting NRTI discontinuation criteria, defined as undetectable HBsAg and HBeAg, alanine aminotransferase < 2x upper limit of normal, and HBV DNA < LLOQ, will be eligible to withdraw NRTI therapy

IFN-α, interferon-alpha; LLOQ, lower limit of quantification; NRTI, nucleos(t)ide reverse transcriptase inhibitor

Phase 2 Combination Study Data : Notable Reductions in S Antigen Seen Across Cohorts

Cohort A

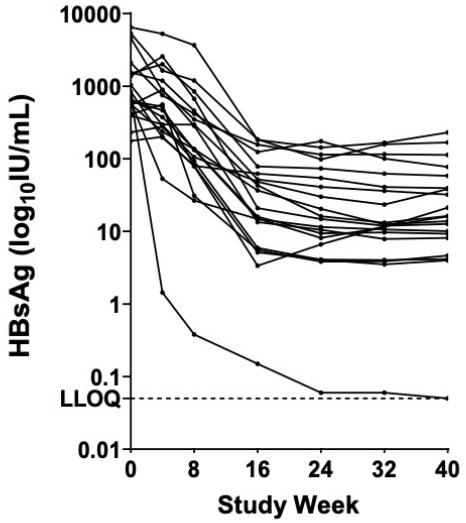
BRII-835 x9 doses



Baseline HBsAg : 387.3 IU/mL
(145.4, 1222.0)

Cohort B

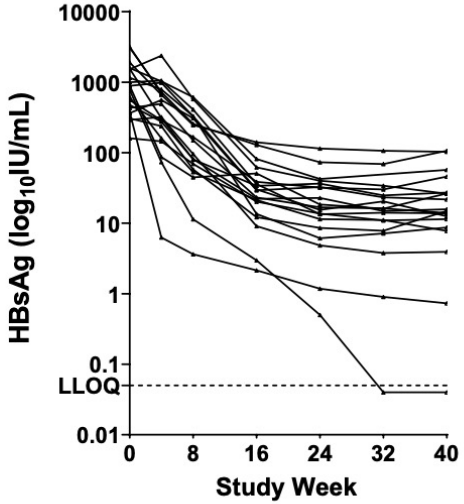
BRII-835 x9 doses
VBI-2601 + IFN-α x9 doses



Baseline HBsAg : 694.7 IU/mL
(175.8, 6479.0)

Cohort C

BRII-835 x9 doses
VBI-2601 x9 doses



Baseline HBsAg : 832.7 IU/mL
(160.2, 3169.0)

Mean (SD) Change From Baseline (log_{10}IU/mL)

	Week 32 (siRNA EOT)	Week 40 (Combo EOT)
Cohort A (n=10)	-1.75 (0.39)	
Cohort B (n=20)	-1.78 (0.58)	-1.75 (0.60)
Cohort C (n=20)	-1.81 (0.71)	-1.77 (0.72)

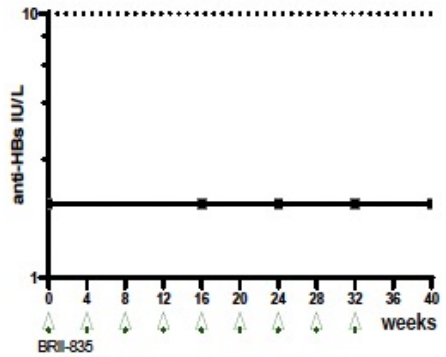
Mean HBV S antigen (HBsAg) reductions from baseline were comparable across all cohorts

Phase 2 Combination Study Data :
Combination Elicited Robust Restoration of Antibody & T-Cell Responses

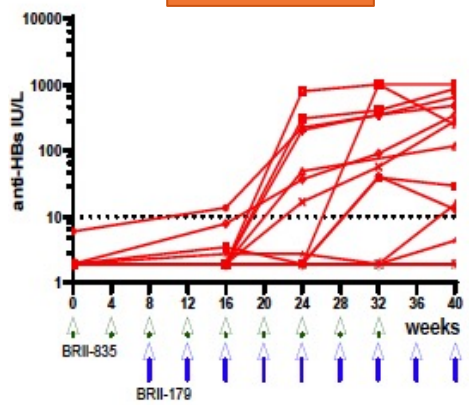
Antibody Responses

- High antibody titers ≥ 10 IU/L induced in **50% (Cohort B n=10/20)** and **58% (Cohort C n=11/19)** of patients who received combination regimen
- No antibody responses were detected in Cohort A (siRNA control arm)

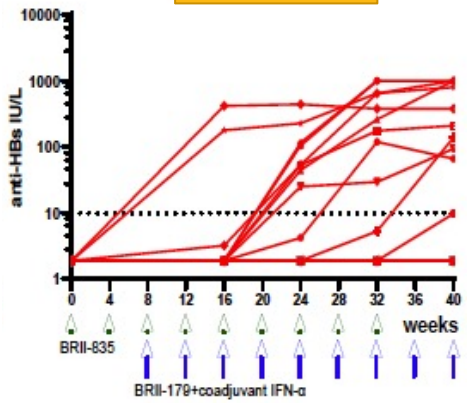
Cohort A

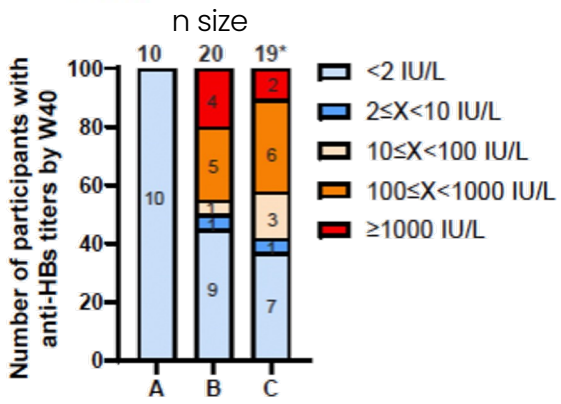


Cohort C



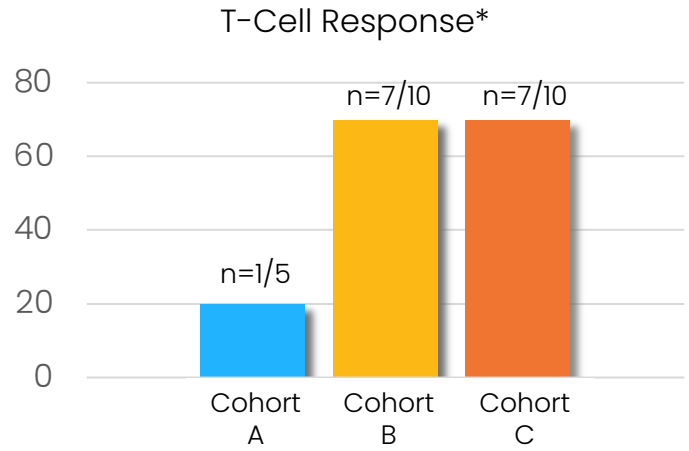
Cohort B





T-Cell Responses

- Addition of VBI-2601 in treatment regimen resulted in higher proportion of patients with potent T-cell responses (> 3x baseline)
- Comparable T-cell responses observed in combination cohorts – with or without IFN-α



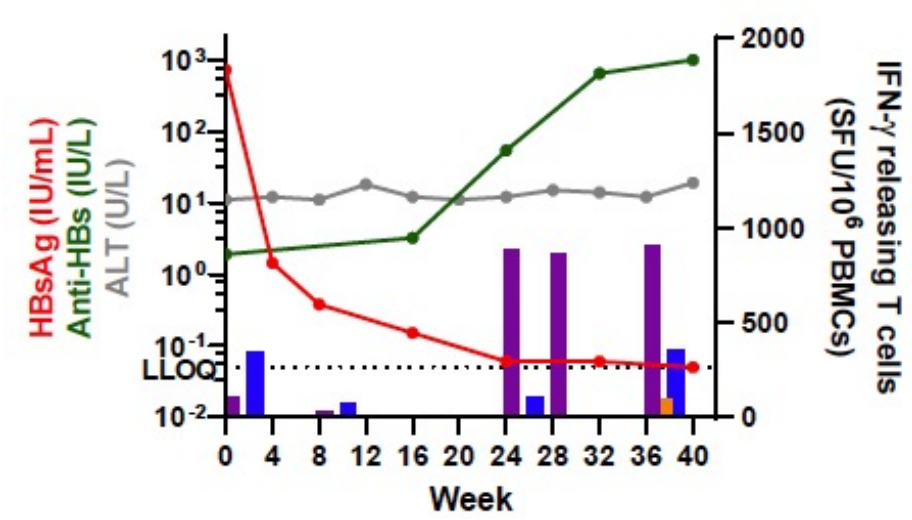
**Available data through Week 44 from first 25 evaluable patients; analyses of remaining samples ongoing*

Phase 2 Combination Study Data :
S Antigen Reductions to LLOQ or Below Achieved in Two Patients

Robust HBV-specific antibody and T-cell responses associated with S Antigen (HBsAg) reduction observed in two patients

Patient 1 (Cohort B)

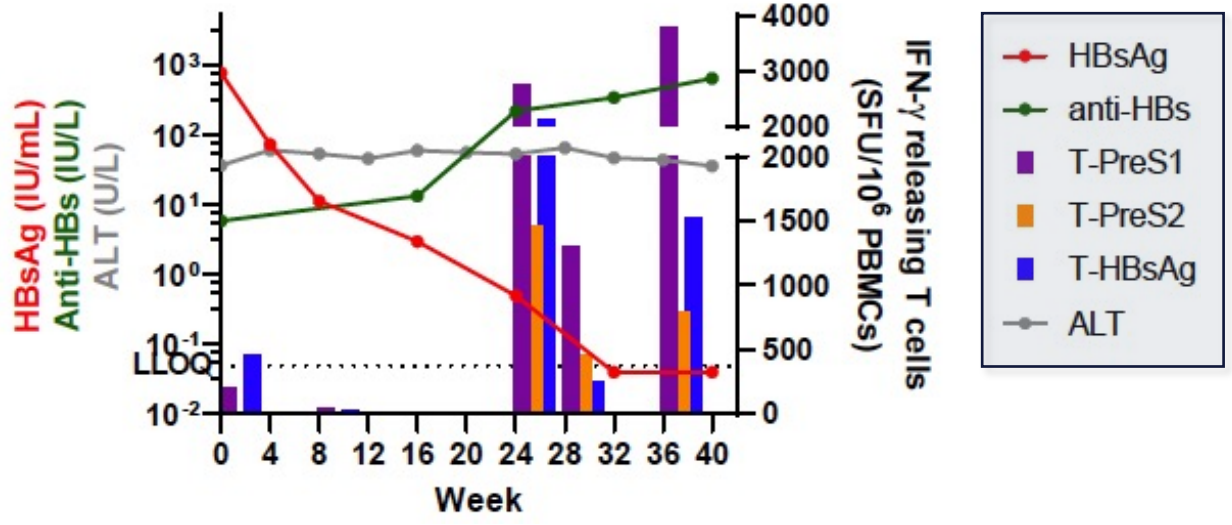
Baseline HBsAg : 723 IU/mL



- Patient 1 achieved **HBsAg at LLOQ** (0.05 IU/mL) at Week 40
- > 4 log_{10} maximum HBsAg reduction from baseline

Patient 2 (Cohort C)

Baseline HBsAg : 776 IU/mL



- Patient 2 achieved **undetectable HBsAg** levels (below LLOQ) at Week 32
- > 4 log_{10} maximum HBsAg reduction from baseline

Follow up for longer-term responses and immune correlation ongoing

Partnership & Milestones

Brii Bio Partnerships

Brii Biosciences
Breakthrough innovation & insight

- As a result of the initial Phase 2 clinical data from the combination study of VBI-2601 and an HBV-specific siRNA announced in February 2023, the partnership has expanded to include:
  - **Worldwide license and collaboration agreement for VBI-2601 (Tx HBV)**
  - **APAC license and collaboration agreement for PreHevbri (Px HBV)**
- In consideration for the expanded partnership, VBI to receive:
  - **Upfront :** $15M, including an equity investment of approximately $3M, contingent upon achievement of near-term milestones
  - **Regulatory and Commercial Milestones :** Up to $422M
  - **Royalties :** Double-digit royalties on Net Sales in the Licensed Territories for both VBI-2601 and PreHevbri

Recent & Upcoming Milestones

- ☑ Apr 2021 : First patient dosed in Phase 2 combination study
- ☑ Jan 2022 : First patient dosed in Phase 2a/2b "add-on" study
- ☑ Feb 2023 : Interim data from Phase 2 Combination Study presented at APASL 2023
- ☑ Jun 2023 : License and collaboration agreement with Brii Bio expanded from Greater China to worldwide
- ❑ H2 2023 : Interim topline results from Phase 2a/2b "add-on" study expected
- ❑ Around Year-End 2023 : Additional data from Phase 2 combination study expected

VBI

Glioblastoma (GBM)

CMV-Associated Tumors

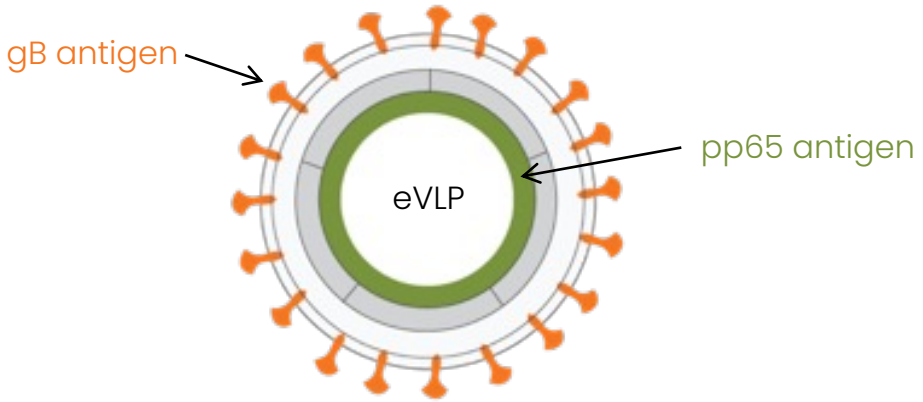
Unique Approach to Immuno-Oncology

CMV as a Foreign Viral Antigen

- 90% of some solid tumors, including glioblastoma (GBM)[1], breast cancers[2], and medulloblastomas[3] are CMV+ tumors
- CMV is not causative, but can influence disease progression of CMV+ tumors
- Because CMV is so broadly (and differentially) expressed on tumor cells, but not on healthy cells, a potent CMV vaccine has the potential to make "cold tumors, hot"
- GBM is one of the most aggressive cancers with few treatment options and no standard of care in the recurrent setting

VBI's eVLP Immunotherapeutic Candidate

VBI-1901 *: Bivalent eVLP expressing two of the most immunogenic CMV antigens*



Key Features:

- Internal antigen expression elicits T cell immunity
- Stimulated innate immunity

Sources: [1]Cobbs C. Current Opinion in Oncology. November 2013; [2]Pasquereau S, et al. The Open Virology Journal. January 2017; [3]Baryawno N, et al. J Clin Invest. October 2011.

Phase 1/2a Study Design & Objectives

Two-part, open-label, dose escalation study designed to assess the safety, tolerability, and optimal therapeutic dose level of VBI-1901 in recurrent GBM patients

Phase 1 (Part A) : Dose-Escalation Phase – Recurrent GBM (any # of recurrences)

Study Arm 1 : Low Dose (n=6)
0.4µg + GM-CSF

VS.

Study Arm 2 : Int. Dose (n=6)
2.0µg + GM-CSF

VS.

Study Arm 3 : High Dose (n=6)
10.0µg + GM-CSF

- Enrollment completed December 2018 (n=18)
- 12-month overall survival (OS) rate of 83% in Vaccine Responders (n=6) vs. 33% in Non-Responders (n=9)
- Vaccine Responders saw a 6.25-month improvement in median OS (14.0 mos) vs. Non-Responders (7.75 mos)
- Tumor responses observed in 3 patients in the high-dose cohort, with evidence of stable disease based on two or more consecutive MRI scans

Phase 2a (Part B) : Extension Phase – Recurrent GBM (1st recurrence only)

Study Arm 1 : High Dose (n=10)
10.0µg + GM-CSF

VS.

Study Arm 2 : High Dose (n=10)
10.0µg + GSK's $AS01_B$ Adjuvant

VBI-1901 + GM-CSF:

- Enrollment completed April 2020 (n=10)
- Tumor Responses : 2 partial responses + 2 stable disease observed

VBI-1901 + GSK's AS01 adjuvant:

- Enrollment completed October 2020 (n=10)
- Tumor Responses : 5 stable disease observed

ClinicalTrials.gov Identifier : NCT03382977

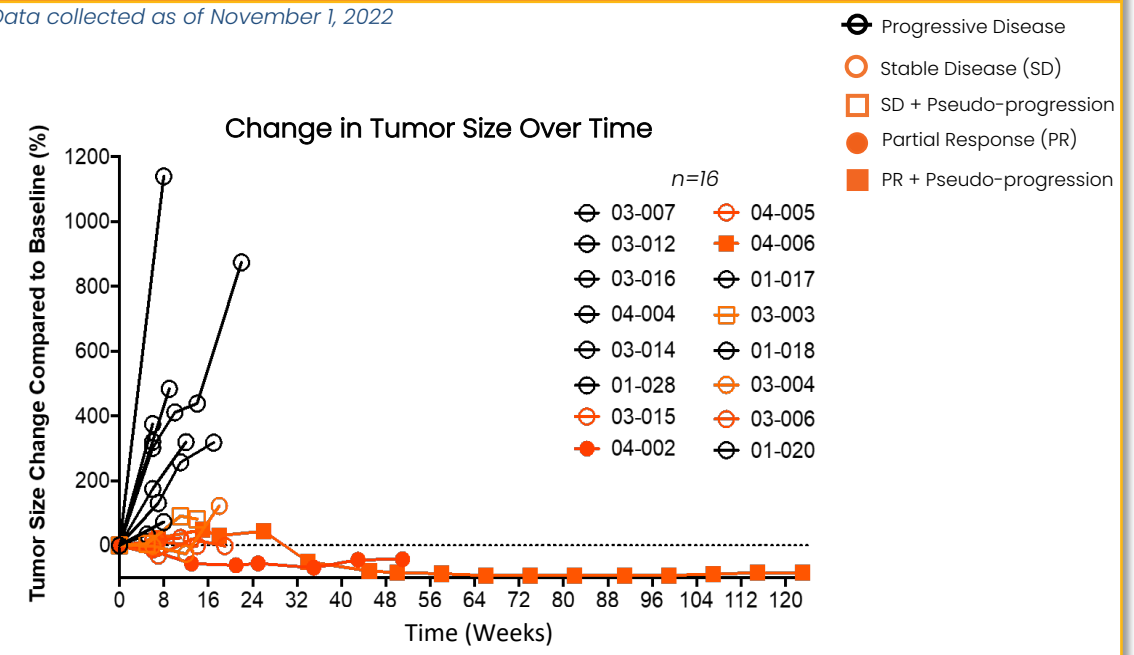
Tumor Responses and Clinical Benefit Observed in Phase 1/2a High-Dose Cohorts

Based upon these rGBM data, U.S. FDA granted Fast Track Designation in June 2021 for VBI-1901 + GM-CSF for the treatment of recurrent GBM patients with first tumor recurrence

Tumor Responses

VBI-1901 10µg + GM-CSF[1] (High Dose Part A + Part B)

Data collected as of November 1, 2022



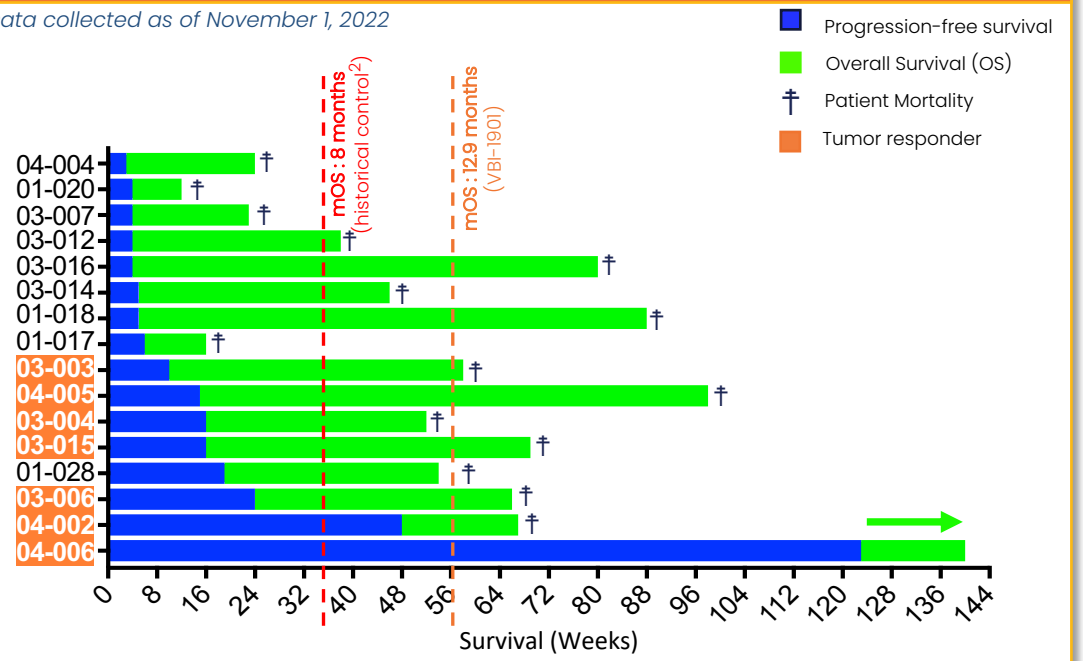
Tumor Responses :

- ✓ 2 Partial Responses (PRs)*
- ✓ 5 Stable Disease (SD)

Clinical Responses

VBI-1901 10µg + GM-CSF[1] (High Dose Part A + Part B)

Data collected as of November 1, 2022



Median & Overall Survival (mOS & OS) :

- ✓ mOS reached at : 12.9 months
- ✓ 12-month : 62.5% (n=10/16)
- ✓ 18-month : 25% (n=4/16)

Source: [1]2022 Society for Neuro-Oncology (SNO) Annual Meeting 2022 (VBI presentation); [2]Taal W, Oosterkamp HM, Walenkamp AME, et al. Single-agent bevacizumab or lomustine versus a combination of bevacizumab plus lomustine in patients with recurrent glioblastoma (BELOB trial): a randomized controlled phase 2 trial. Lancet Oncol. 2014; 15: 943-953; *Tumor responses in glioblastoma patients are classified according to the Response Assessment in Neuro-Oncology (RANO) criteria, which defines a partial response (PR) as a greater than 50% reduction in the sum of products of perpendicular diameters of all measurable enhancing lesions compared with the baseline, sustained for at least four weeks, with no new lesions or clinical progression of disease

FDA Designations, Next Steps & Milestones

FDA Designations & Next Steps

- Based on data seen in the Phase 1/2a study, VBI-1901 was granted:
  - FDA Fast Track Designation for VBI-1901 + GM-CSF in June 2021

    Fast Track Designation facilitates the development and expedites the review of new therapies to treat serious conditions and fill an unmet medical need
  - FDA Orphan Drug Designation for VBI-1901 in June 2021

    Orphan Drug Designation is granted to investigational drugs and biologics that target conditions that affect fewer than 200,000 people in the U.S.

- VBI expects to assess VBI-1901 in both the recurrent and primary settings as the next phase of development:
  - Primary GBM : As part of the INSIGhT trial, an adaptive platform clinical study, in combination with Agenus' anti-PD-1 monoclonal antibody, balstilimab
  - Recurrent GBM : In an expanded Part C of the ongoing study, to include a control arm to support potential accelerated approval based on tumor response, improvement in overall survival, and discussions with regulatory bodies

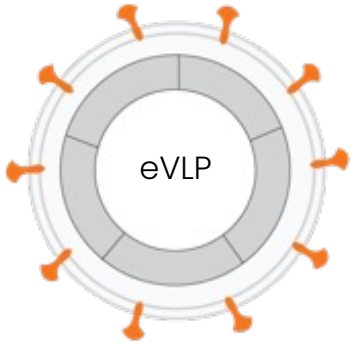
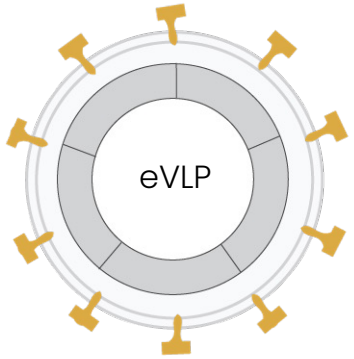
Recent & Upcoming Milestones

- ☑ Jun 2021 : FDA Fast Track Designation granted in recurrent setting
- ☑ Jun 2022 : FDA Orphan Drug Designation granted in recurrent setting
- ☑ Nov 2022 : Additional Phase 1/2a data announced at SNO Annual Meeting
- ❑ Mid-Year 2023 : Expected initiation of expanded Part C of ongoing study in recurrent GBM patients
- ❑ Q3 2023 : Expected initiation of VBI-1901 study arm in INSIGhT trial in primary GBM patients

Coronaviruses

VBI is Committed to the Long-Term Protection Against Coronaviruses

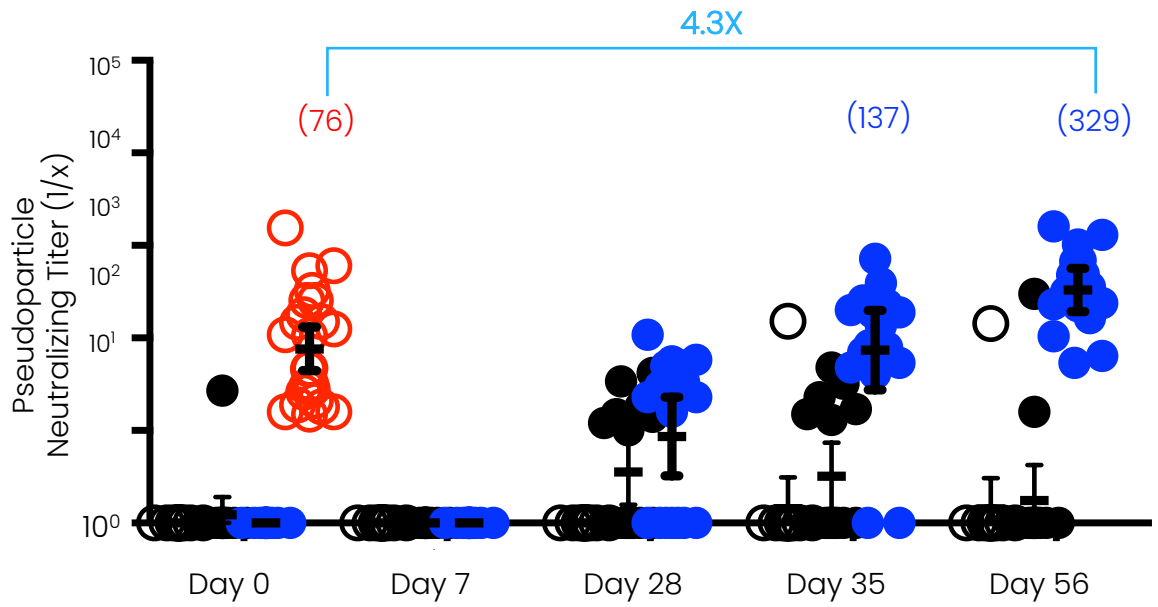
VBI's coronavirus pipeline program (VBI-2900) is designed with the goal of eliciting broad and durable immune responses against COVID-19 and coronaviruses

	VBI-2901 *Trivalent Pan-Coronavirus*	VBI-2902 *Monovalent COVID-19*	VBI-2905 *Monovalent COVID-19 B.1.351 Variant*	Undisclosed *Multivalent Candidates*
Schematic				*A suite of additional multivalent coronavirus vaccine candidates designed to evaluate the potential breadth of VBI's eVLP technology*
Construct Design	Ancestral COVID-19, MERS, SARS spike antigens	Ancestral COVID-19 spike antigen	COVID-19 B.1.351 (501Y.V2) spike antigen	Undisclosed

Human Proof-of-Concept : VBI-2902 Induced Neutralizing Titers Comparable to Approved mRNA Vaccines

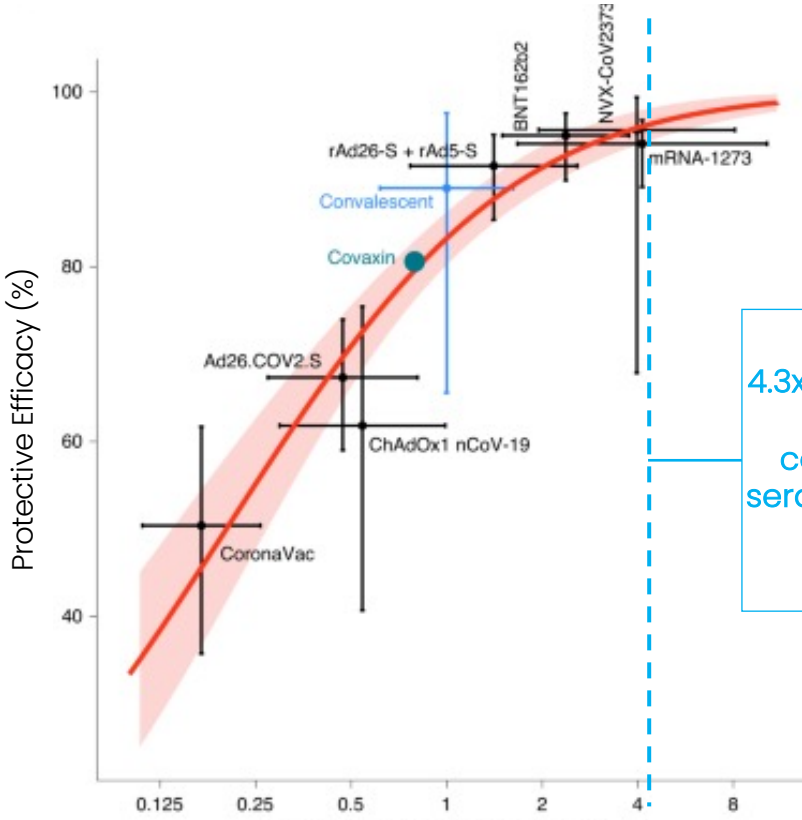
After two doses of 5ug, VBI-2902a elicited neutralizing antibody (nAb) responses 4.3X higher vs. a panel of convalescent sera, without the use of a next-generation adjuvant in a Phase 1a study

Neutralizing Activity[1]



Convalescent Benchmark : A panel of 25 sera from recovered patients with mild-to-moderate COVID-19

Comparison to Currently Approved Vaccines[2]



4.3x VBI-2902 nAb GMT vs. convalescent sera, comparable to mRNA

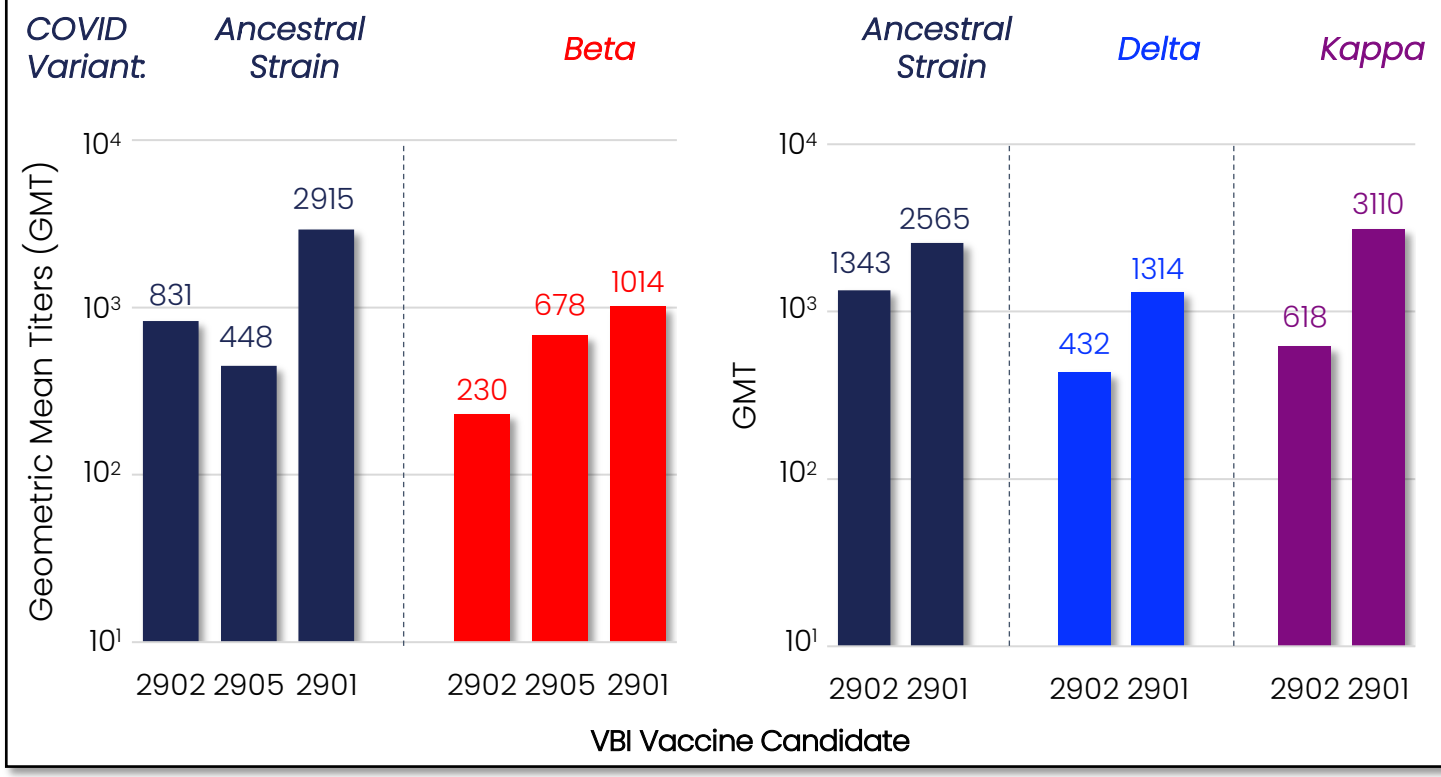
Note: Data does not include n=11 participants who got vaccinated with a separate COVID-19 vaccine (not VBI-2902) during the study

Sources: [1]Bozic et al., bioRxiv, September 2021; additional data presented by VBI in conference call held September 29, 2021; [2]Khoury, Nature Medicine, 2021.

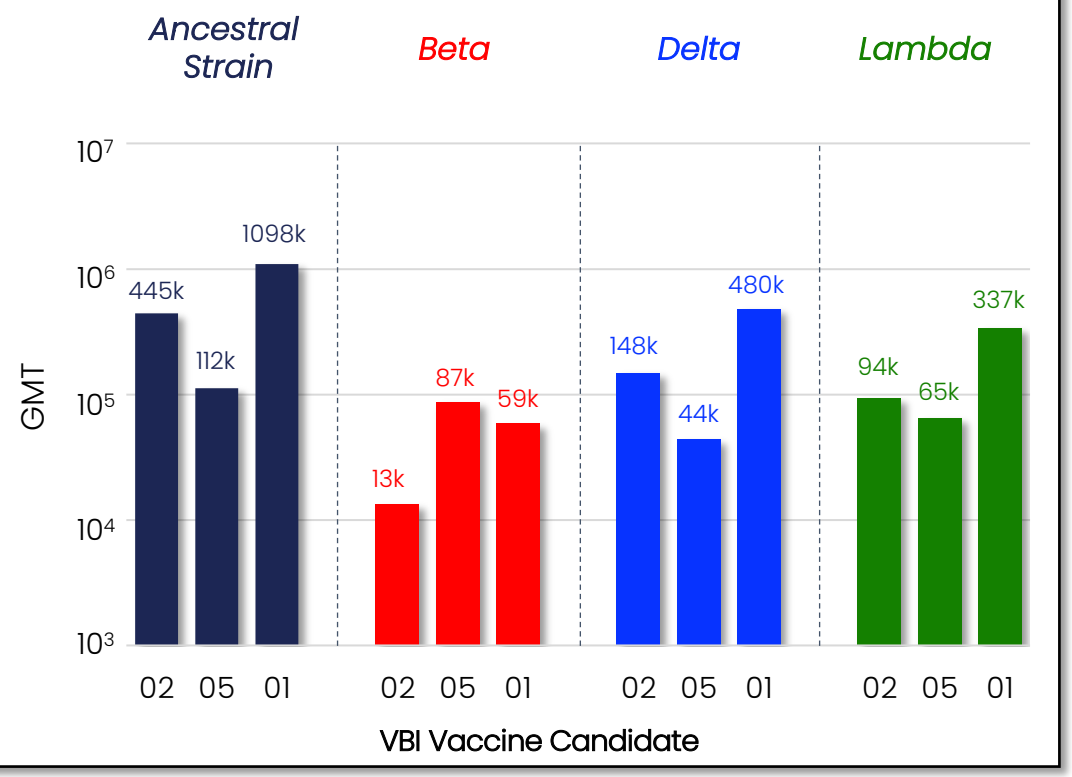
Trivalent VBI-2901 Induced Robust Antibody and Neutralizing Titers Against an Extended Panel of Variants

VBI-2901 induced higher and more consistent immunogenicity in preclinical studies against Beta, Delta, Kappa, and Lambda variants, with evidence for broadening immunity rather than just boosting cross-reactive antibodies

Neutralizing Antibody Activity



Binding Antibody Activity



Immunogenicity of trivalent VBI-2901a: Three groups of 10 mice were immunized with 2 doses of VBI-2901a, VBI-2902a, or VBI-2905a 3 weeks apart. Blood was collected at day 14 after the last injection for monitoring of humoral responses. Neutralization EPT measured by PRNT90 against Wu-1 virus and Beta variant. Neutralization of pseudoparticles expressing S from Wu-1, Delta, and Kappa variants are represented as half-maximum inhibitory dilutions (neutralization ID50). Due to technical limitations, only 8 sera per group were tested against Wu-1 and Kappa pseudoparticles and 4 sera against Delta pseudoparticles. Ab binding titers measured in ELISA against recombinant RBD from Wu-1 ancestral virus, or Beta, Delta, and Kappa variants.

Source: Bozic et al., bioRxiv, September 2021; additional data presented by VBI in conference call held September 29, 2021.

Partnerships & Milestones

Partnerships

VBI's coronavirus program is supported by partnerships with:

- Canada — Awarded up to $56M CAD contribution
- CEPI — Awarded up to $33M USD of funding
- NRC · CNRC — Development collaboration
- RESILIENCE — Development and manufacturing partnership

Recent & Upcoming Milestones

- ☑ 2021/2022 : Data from Phase 1 studies demonstrated eVLP candidates are highly potent at low clinical doses, with generally favorable safety and tolerability profiles
- ☑ Sept 2022 : Initiation of Phase 1 study of multivalent coronavirus vaccine candidate (VBI-2901)
- ❑ Mid-Year 2023 : Interim data from Phase 1 study of VBI-2901 expected

Summary

VBI Team

Management

Jeff Baxter
President & CEO

David E. Anderson, Ph.D.
Chief Scientific Officer

Francisco Diaz-Mitoma, M.D., Ph.D.
Chief Medical Officer

Nell Beattie
Chief Financial Officer & Head of Corporate Development

John Dillman
Chief Commercial Officer

Avi Mazaltov
Global Head of Manufacturing & SciVac General Manager

Board of Directors

Steve Gillis, Ph.D.
Chair

Damian Braga
Director

Joanne Cordeiro
Director

Michel De Wilde, Ph.D.
Director

Vaughn B. Himes, Ph.D.
Director

Blaine H. McKee, Ph.D.
Director

Jeff Baxter
Director

Nell Beattie
Director

Summary of Anticipated Key Upcoming Milestones

Px HBV
PreHevbrio (U.S.)

- Q3 2023 : PreHevbri expected to be available in additional European countries beginning in Q3 2023, following the UK launch in June 2023
- By Year-End 2023 : Following Health Canada approval in December 2022, VBI expects to make PreHevbrio available in Canada in 2023

Tx HBV
VBI-2601

- H2 2023 : Interim topline results expected from Phase 2 study evaluating VBI-2601 as an add-on therapy to potentially improve current standard of care treatment outcomes
- Around Year-End 2023 : Additional clinical data from Phase 2 combination study of VBI-2601 (BRII-179) and BRII-835 (VIR-2218) expected

GBM
VBI-1901

- Mid-Year 2023 : Expected initiation of expanded n-size of patients in ongoing VBI-1901 study in recurrent GBM - expansion study to include addition of control arm to support potential accelerated approval, subject to tumor response, improvement in overall survival, and discussions with regulatory bodies
- Q3 2023 : Expected initiation of VBI-1901 in the frontline setting in combination with Agenus' anti-PD-1 monoclonal antibody, balstilimab – expected to initiate as part of the Phase 2 INSIGhT trial, an adaptive platform clinical study

Coronaviruses
VBI-2901

- Mid-Year 2023: Interim data from Phase 1 study of VBI-2901 (multivalent coronavirus) expected

VBI Vaccines Inc. | www.vbivaccines.com