VBI VACCINES

ACTIVATING THE POWER WITHIN

Corporate Overview

NASDAQ : VBIV

April 2024

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 Company's ability to regain and maintain compliance with the listing standards of the Nasdaq Capital Market, the Company's ability to satisfy all of the conditions to the consummation of the transactions with Brii Biosciences, the Company's ability to comply with its obligations under its loan agreement with K2 HealthVentures, the impact of general economic, industry or political conditions in the United States or internationally; the impact of the COVID-19 endemic 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 April 16, 2024, and filed with the Canadian security authorities at sedar.com on April 16, 2024, as may be supplemented or amended by the Company's Quarterly Reports on Form 10-Q and Current Reports on Form 8-K.

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.

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 infectious disease and cancer indications

Notable targets include:

- Hepatitis B (HBV)
- Glioblastoma (GBM)
- COVID-19, coronaviruses
- Cytomegalovirus (CMV)

Our locations...

Rehovot, Israel*
Manufacturing Facility
GMP manufacturing facility for the production of PreHevbrio

Ottawa, Canada
Research Operations
R&D headquarters and facility

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

*Expected to be purchased by Brii Biosciences mid-year 2024, upon completion of certain activities

[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 Preventive 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

68% 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

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

RECURRENT TUMORS DOUBLE IN SIZE **EVERY 6 WEEKS**

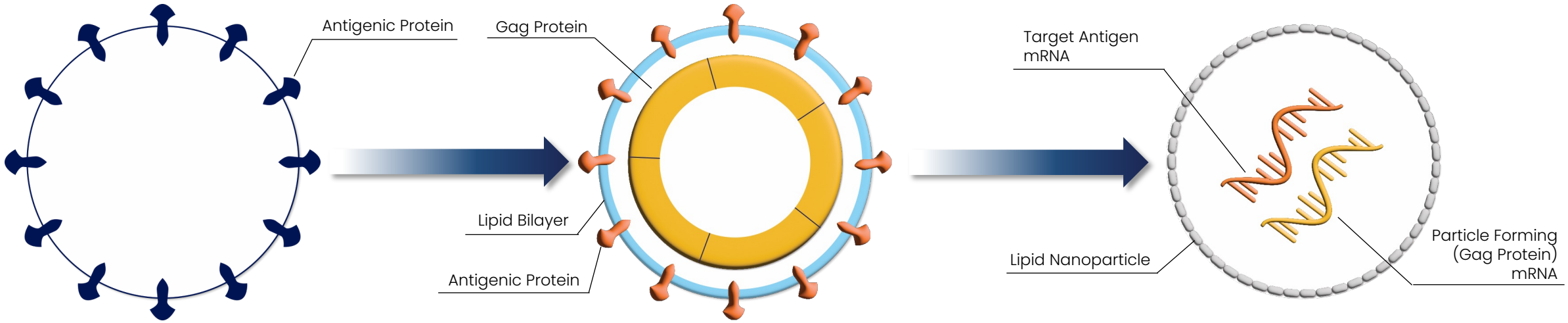
Median Overall Survival (OS)

15 MO.
PRIMARY GBM[1]

8 MO.
RECURRENT GBM[2]

Sources: U.S. Centers for Disease Control and Prevention; [1]Stupp R, et al. New England Journal of Medicine. March 2005; [2]Taal W, et al. The Lancet Oncology. August 2014.

Our Technology :
Revolutionizing 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
- Few antigens self-assemble into orderly VLP structures: **notably, this includes hepatitis B 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 – enabling potential for multiple antigen expression
- Highly immunogenic with demonstrated safety profile

MLEs
mRNA –Launched eVLPs

- Leverages the strengths of both eVLP and mRNA technologies – enabling efficient and customizable design
- Addition of genetic code for particle-forming structural protein (Gag) instructs cells to create eVLPs *in vivo*, driving potent, functional immune responses
- Fast manufacturing timelines – similar to other mRNA vaccine production platforms

VBI's portfolio consists of vaccines and immunotherapeutics derived from three variations of VLP technology platforms

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 (BRII-179)	*VLP*				*Licensed to Brii Biosciences*[5]	
Cytomegalovirus (CMV) & Virally Associated Tumors							
Treatment (GBM)	VBI-1901	*eVLP*					
Prevention (CMV)	VBI-1501	*eVLP*					
Treatment	Undisclosed	*MLE*					
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*					
Prevention	Undisclosed	*MLE*					
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
[5]WW license granted to Brii Biosciences in July 2023, and, subject to certain achievements, is expected to be sold to Brii Biosciences by mid-year 2024

Recent Deal with Brii Biosciences Significantly Reduces VBI's Debt Liability

Announced February 14, 2024

- VBI to receive up to $33M in consideration from Brii Biosciences, subject to achievement of certain activities, for:
  - $10M : VBI's manufacturing capabilities and certain related assets at Rehovot manufacturing facility
  - $18M : Intellectual property for VBI-2601 (immunotherapeutic HBV candidate), reduction in obligations from July 2023 agreements, and transfer of manufacturing technology for VBI-2601 to a CDMO of Brii's choice
  - $5M : Exclusive Asia Pacific (APAC), minus Japan, license for VBI-1901 (GBM)

- Following completion of the full transaction, VBI expects its total debt principal with K2 HealthVentures to be significantly reduced from $50M to $17M

- Target completion date for the full transaction is June 30, 2024, however, certain components may close earlier

- In connection with the transaction, certain covenants in VBI's loan agreement with K2 have been amended as well

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

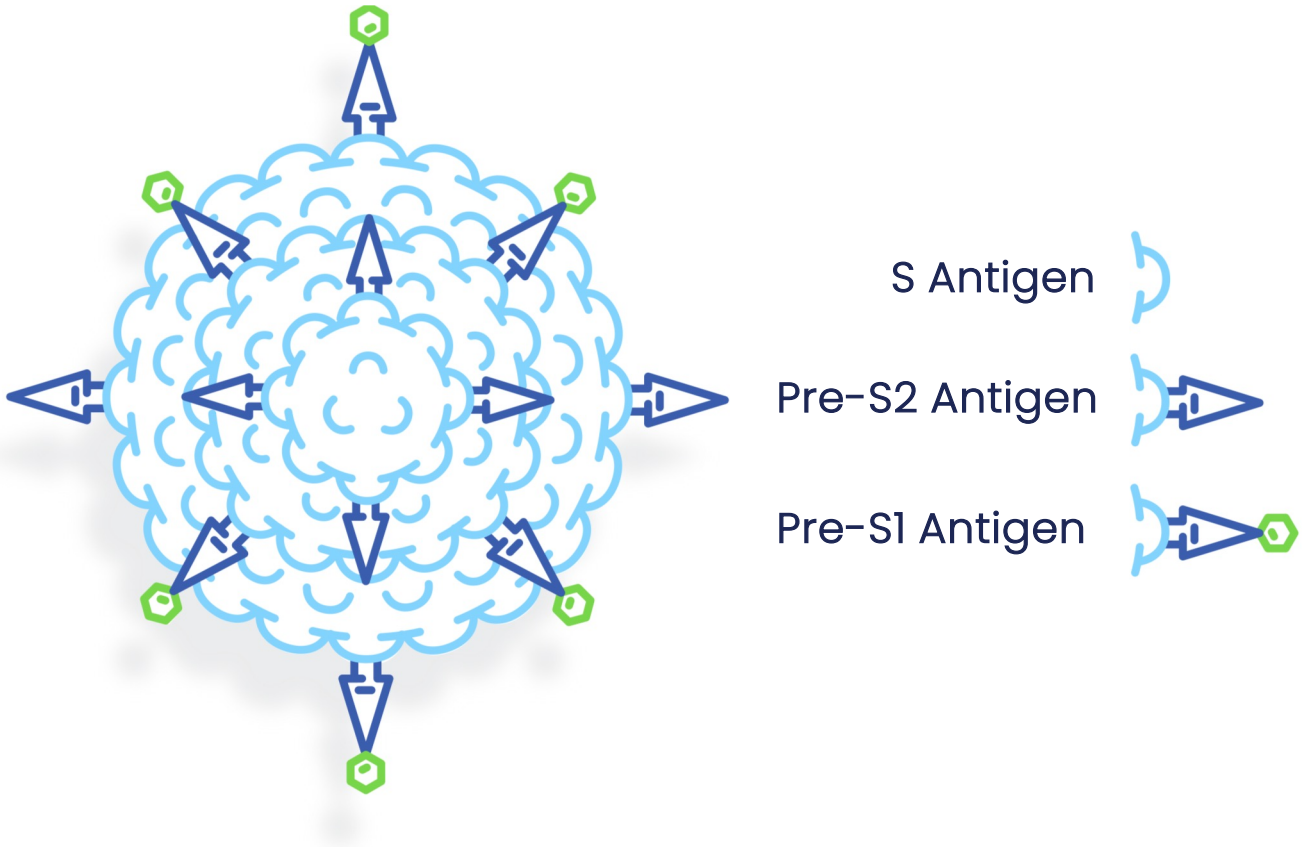
Nell Beattie
Director

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)



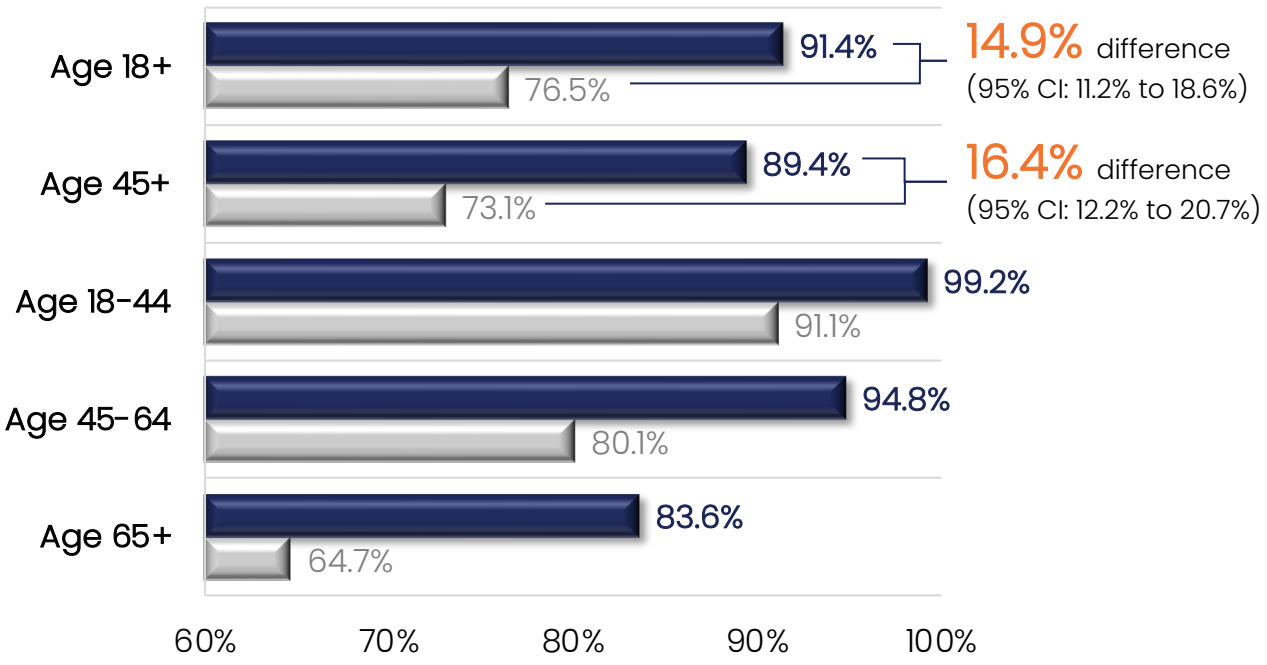
The Pre-S1 and Pre-S2 proteins serve important roles in the viral invasion of hepatocytes, and in viral infection, viral assembly, viral replication, and stimulation of immune responses in the body

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

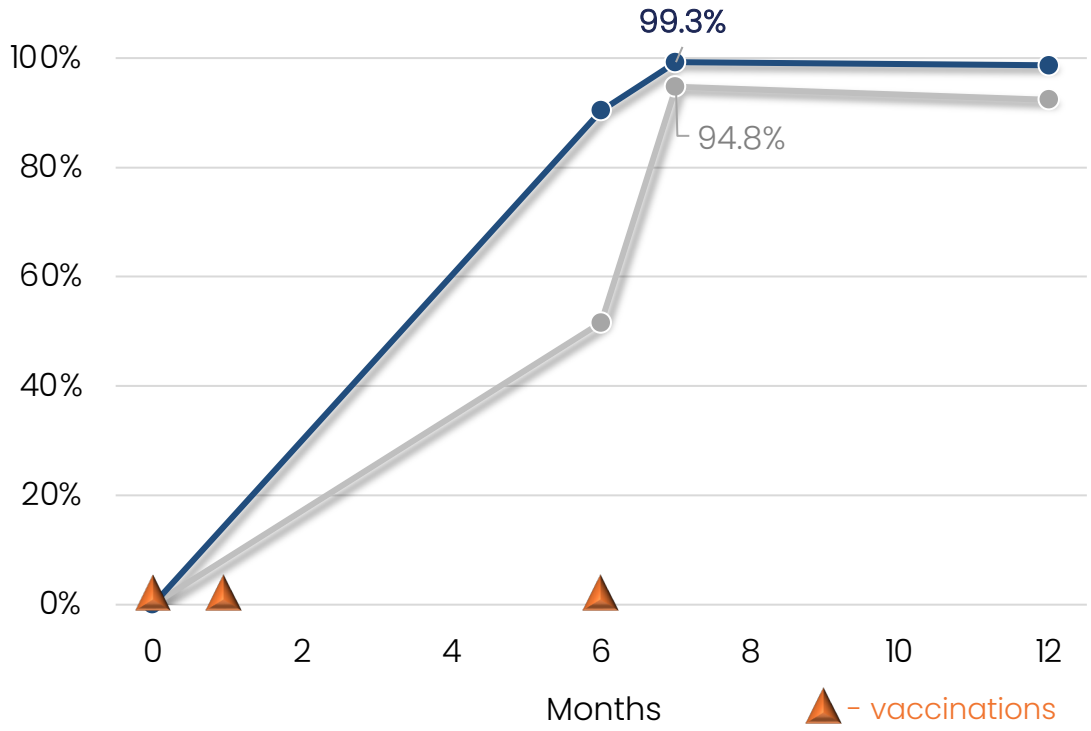
Seroprotection Rate (SPR)[1] at Day 196



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 2030, included in GHSS on viral hepatitis 2016-2021

Commercialization 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, excluding Japan

U.S. Market & 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

2023: 5.0M doses — 5% increase from Pre-COVID levels

The 2022 CDC Universal Recommendation is anticipated to increase the overall addressable market:

70% of all adults in the U.S. are unvaccinated today

2023 Commercial Update

2023 Net Sales: $3.1M — 234% increase from 2022

PreHevbrio is now available to purchase at:

- CDC adult vaccine contract
- 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 retail partners, U.S. integrated delivery networks (IDNs) and hospital systems that offer PreHevbrio

Preliminary 2024 U.S. Sales:

- Through early March 2024, U.S. sales volume totaled approximately 65% of 2023 full year volume, demonstrating substantial outpacing of 2023 on a volume basis

Sources: Internal data and company estimates

Glioblastoma (GBM)

CMV-Associated Tumors

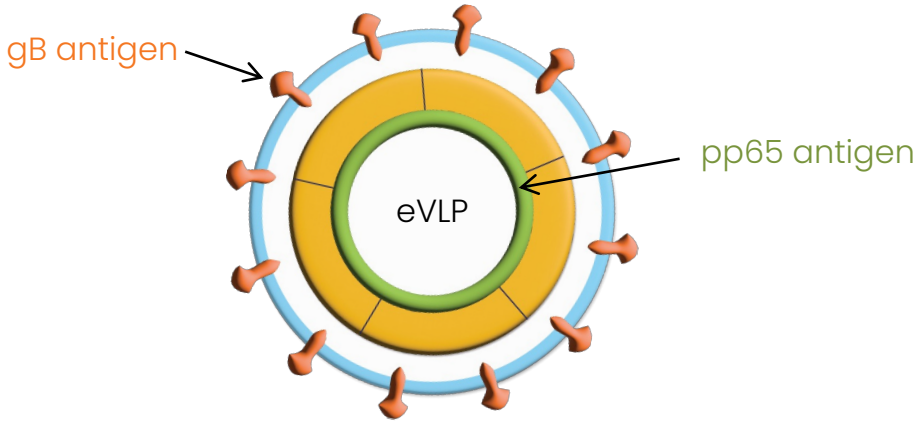
Unique Approach to Immuno-Oncology

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 among the most common and aggressive malignant brain tumors with few treatment options available

VBI's Enveloped Virus-Like Particle (eVLP) Approach

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

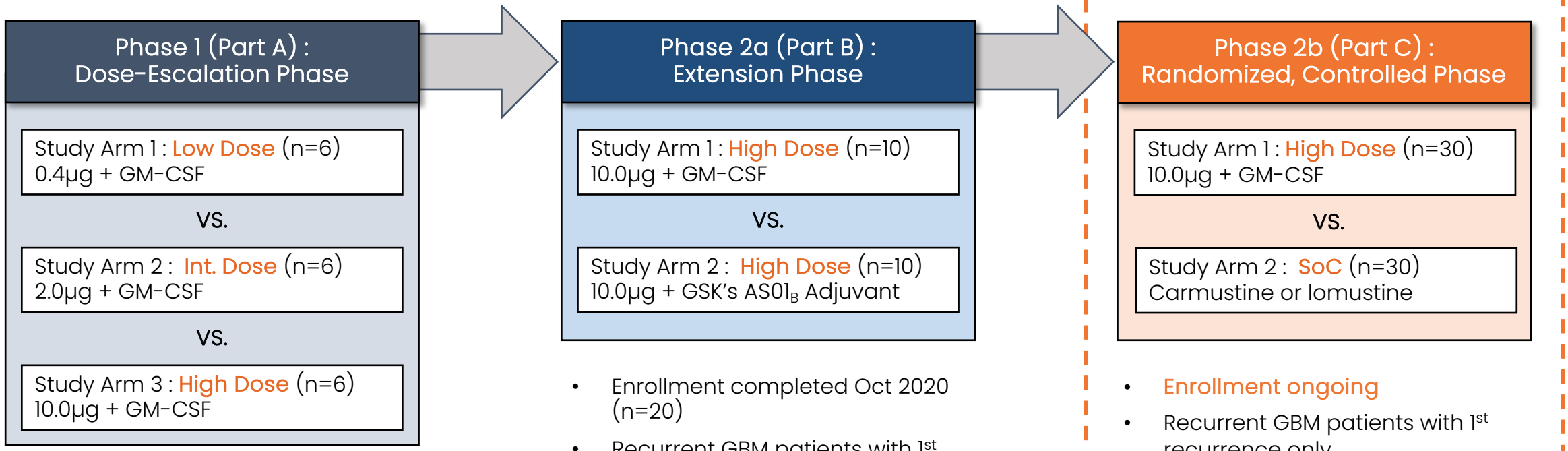


Key Features:

- 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 1/2 Recurrent GBM Study Design & Objectives



- Enrollment completed Dec 2018 (n=18)
- Recurrent GBM patients with any number of recurrences

- Enrollment completed Oct 2020 (n=20)
- Recurrent GBM patients with 1st recurrence only

- Enrollment ongoing
- Recurrent GBM patients with 1st recurrence only

Data from Part A & B of Ongoing Phase 1/2 Study

As at August 1, 2023

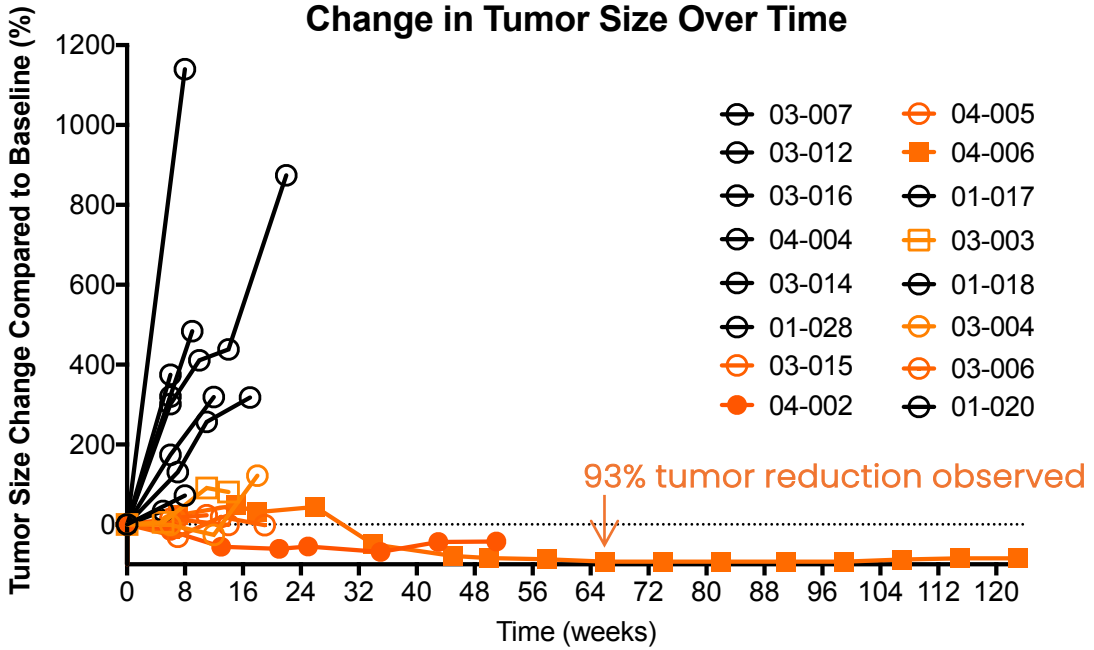
Based on the below results, U.S. FDA granted Fast Track Designation and Orphan Drug Designation to VBI-1901 + GM-CSF for the treatment of recurrent GBM patients with first tumor recurrence

Tumor Responses

High Dose: Parts A & B

Disease Control Rate : 44% (n=7/16)

2 Partial Responses (PR)+ 5 Stable Disease (SD)



Legend:

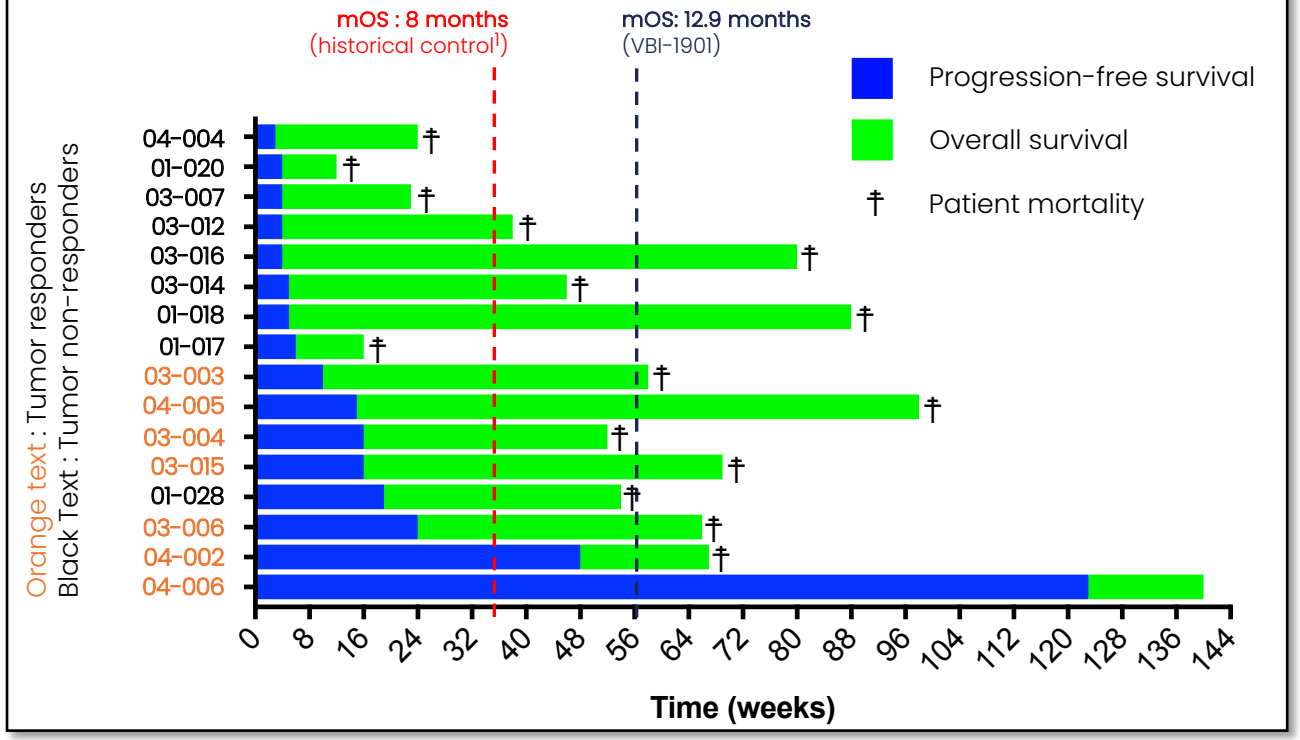
- Progressive Disease
- Stable Disease (SD)
- SD + Pseudo-progression
- Partial Response (PR)
- PR + Pseudo-progression

Clinical (Survival) Responses

High Dose: Part B

mOS reached at 12.9 months vs. 8 months with historical control

12-month OS : 62.5% (n=10/16)

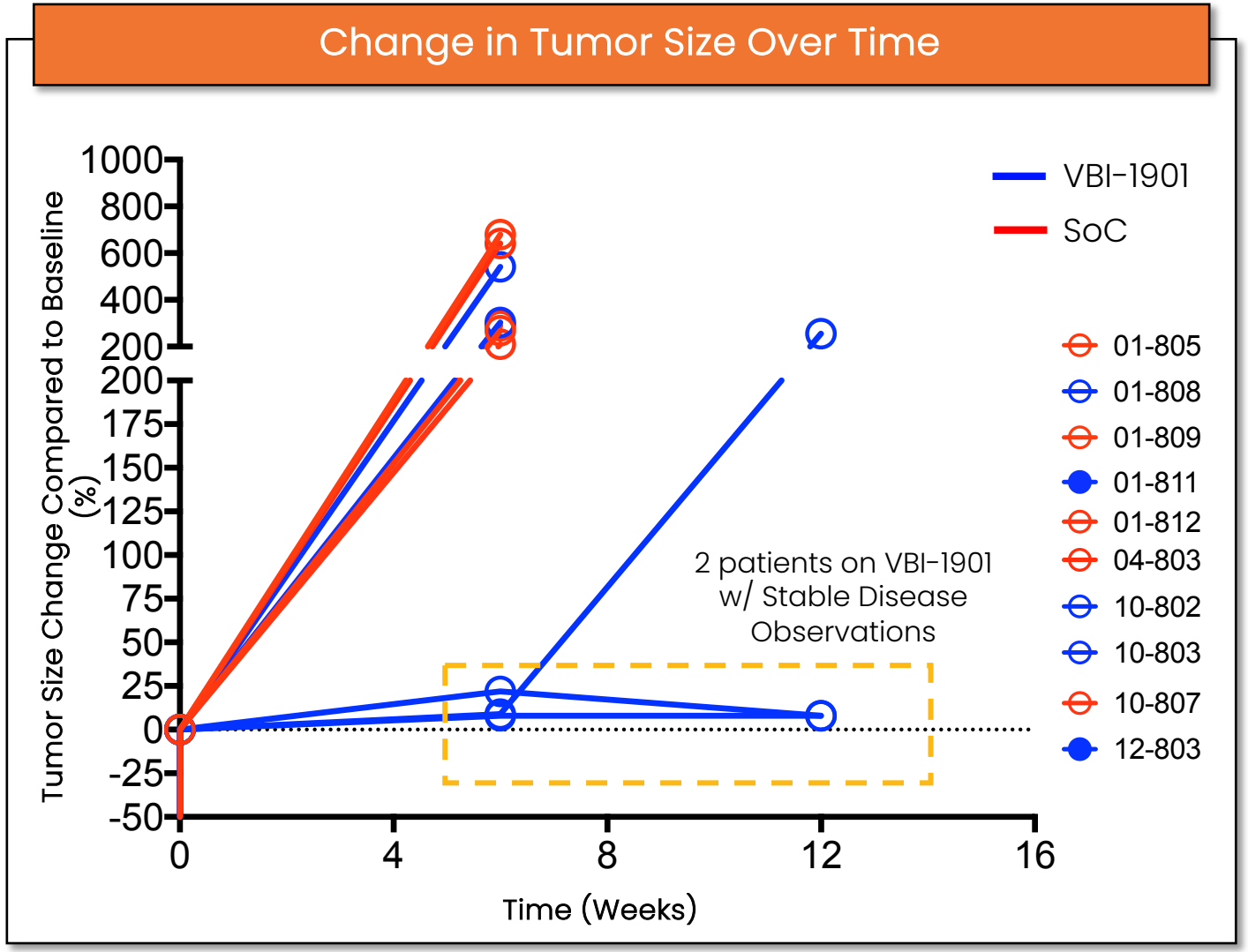


Source: 2024 World Vaccine Congress Washington (VBI presentation); [1]Taal W, Oosterkamp HM, Walenkamp AME, et al. Lancet Oncol. 2014; *Tumor responses in glioblastoma patients are classified according to the Response Assessment in Neuro-Oncology (RANO) criteria, which defines a partial response (PR) 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

Early Tumor Response Data from Part C (Phase 2b) of Ongoing Phase 1/2 Study

- 17 patients have been randomized and received first dose of treatment as of March 22, 2024
  - N=8 : Standard-of-Care (SoC) arm (Carmustine or lomustine)
  - N=9 : VBI-1901 arm
- 11 patients currently evaluable for tumor response assessment
  - 0/6 patients on SoC have been on protocol for longer than 6 weeks
  - 2/5 patients on VBI-1901 have stable disease (12 weeks without tumor progression)

Separation of tumor response trends observed to date in SoC arm and VBI-1901 arm is expected based on data from Part A and B and known efficacy of SoC



Source: 2024 World Vaccine Congress Washington (VBI presentation)

Summary and Next Steps for VBI-1901

Summary of Part A&B

- **~5-month improvement in mOS** observed vs. historical standard-of-care (12.9 months vs. 8 months)
- 12-month OS : 62.5% (n=10/16)
- **2 partial tumor responses** (PRs)
- **93% tumor reduction** seen in one patient who remained on treatment > 28 months
- **44% disease control rate** achieved (n=7/16)
- **Study results foundational for Part C randomized, controlled trial under FDA Fast-Track Designation**

Early Data from Part C

- **Early data are consistent with data from Part A and Part B**
- To date, 40% disease control rate in VBI-1901 study arm vs. 0% in standard-of-care study arm
- Already observing separation in tumor response trends between the two study arms
- Pending tumor response rates and overall survival data, results may provide potential for Accelerated Approval under FDA Fast Track Designation

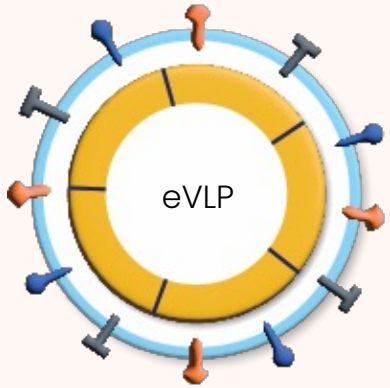
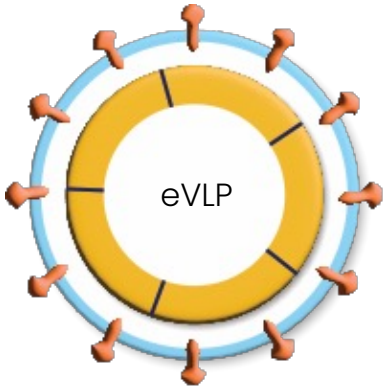
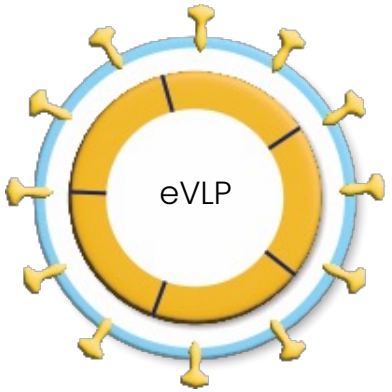
Next Steps

- 14 clinical sites are actively recruiting across the United States
  - Two new sites came online in March 2024, with another site expected in April
  - Enrollment in Q1 2024 has been 2x the enrollment rate observed in Q4 2023
- **Additional interim data expected mid-year and year-end 2024**

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 *Multivalent 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

✓ Phase 1 Complete:
eVLP Platform PoC Achieved

VBI-2901 Phase 1 Study Design

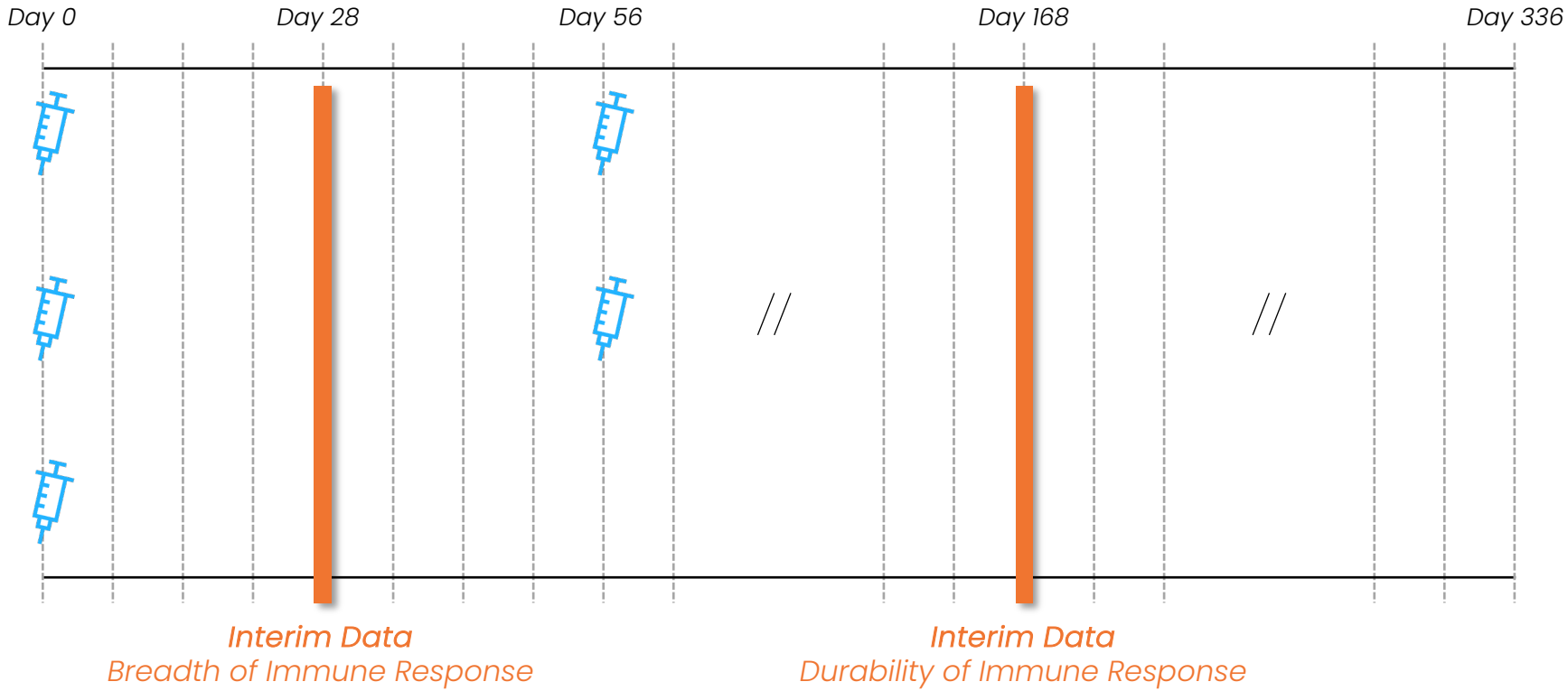
Randomized, open-label Phase 1 study of VBI-2901 in n=103 healthy adults aged 18-64 previously vaccinated with 2+ doses of COVID-19 vaccines licensed by Health Canada

Study Design

Cohort 1 *(n=34)*
2x 5µg doses of VBI-2901

Cohort 2 *(n=35)*
2x 10µg doses of VBI-2901

Cohort 3 *(n=34)*
1x 10µg dose of VBI-2901

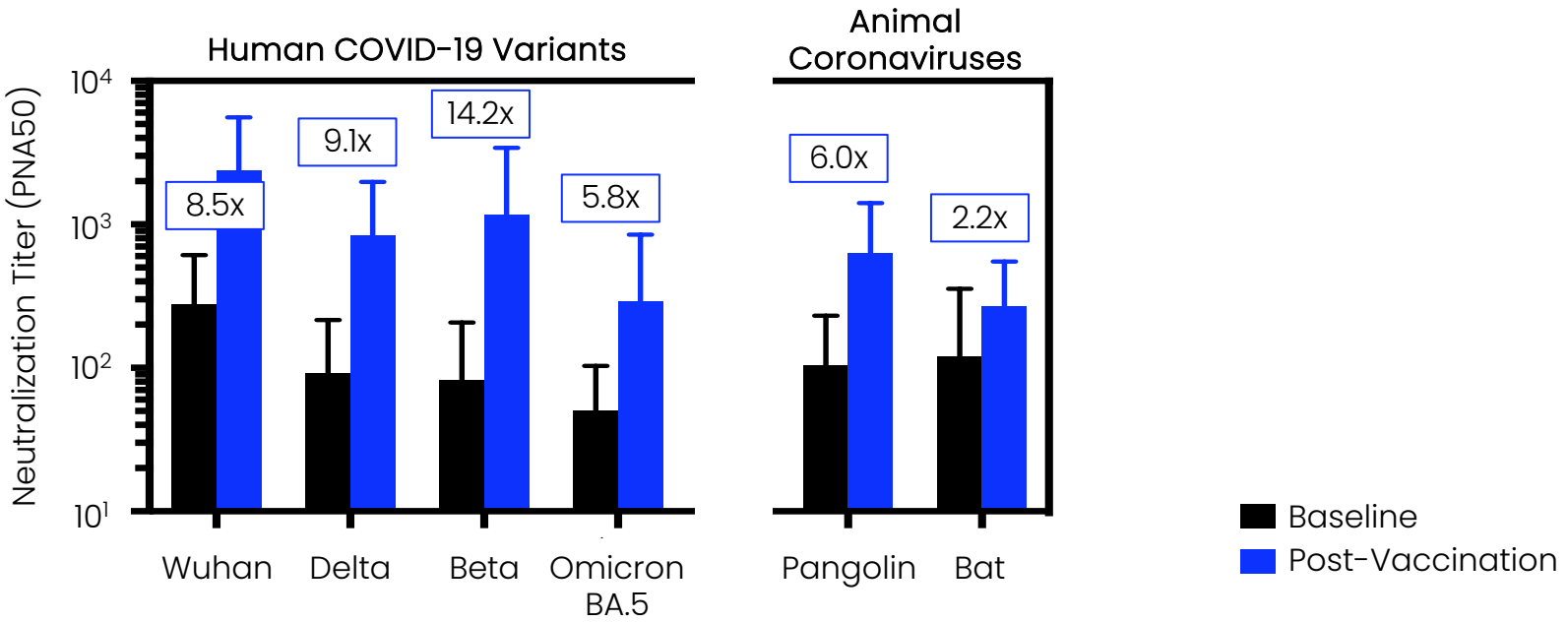


- First clinical data from a pan-coronavirus vaccine candidate – interim data announced September 2023
- No safety signals or Grade 3/4 adverse events observed – consistent with known safety profile of eVLP platform technology
- Peak immune responses were achieved in adults who received a single 10µg dose of VBI-2901

Interim Phase 1 Data : Breadth of Immune Response

VBI-2901 elicited high neutralizing responses against a panel of COVID-19 variants, including Wuhan, Delta, Beta, Omicron BA.5, and multiple animal coronaviruses

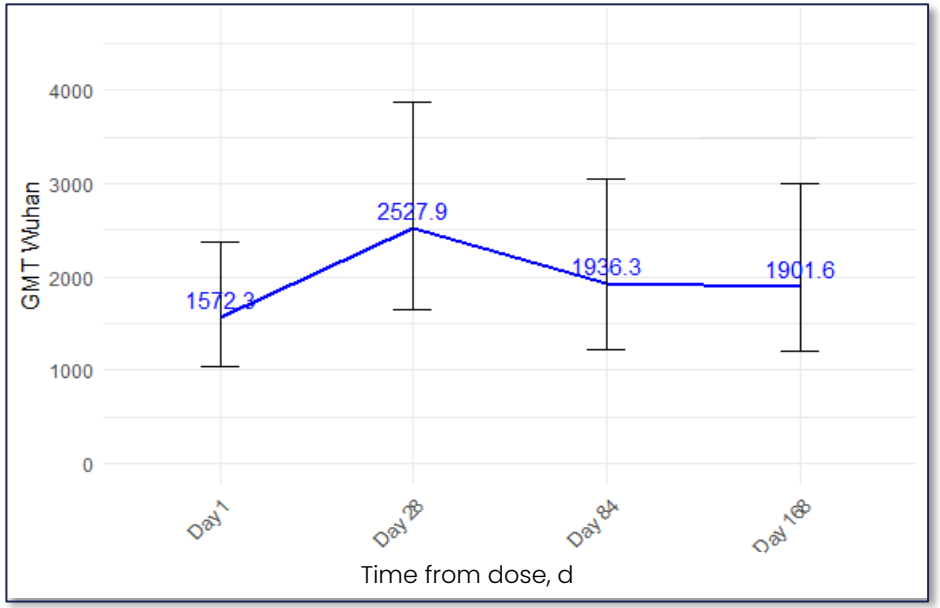
- All participants saw boosting and/or high neutralizing responses against a panel of COVID-19 variants (as assessed at Day 28 – 4 weeks after the first dose of VBI-2901)
- Despite the enrollment criteria, many participants had high baseline titers of neutralizing antibodies, however, ~10% of participants who received 1+ dose of 10µg of VBI-2901 had low baseline titers (GMT: 148 IU50/mL vs. GMT: 1998 IU50/mL for all other participants) – this population is considered most at-risk of infection
- In this high-risk group, significant vaccine-induced boosting of neutralizing antibodies was observed at Day 28 with one dose of VBI-2901 10µg:



Interim Phase 1 Data : Durability of Immune Response

Durability of protective titers induced by VBI-2901 were maintained through interim data point at Day 168 (6 months) – substantially more persistent compared to published durability data for a licensed mRNA vaccine

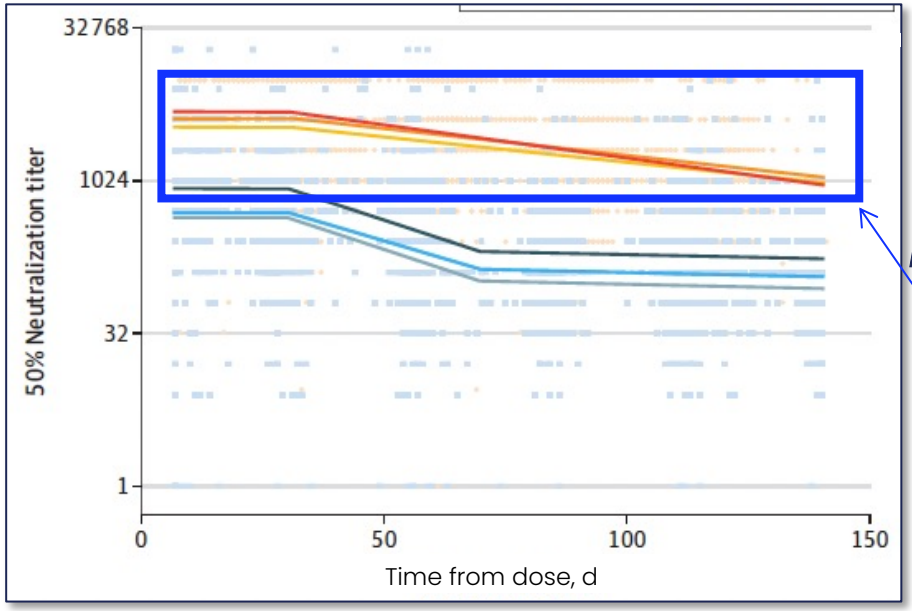
Cohort 3 (1x 10µg dose of VBI-2901)

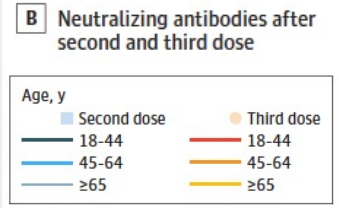


- Only ~25% reduction in GMT against Wuhan after 5 months vs. peak immune responses
- *Similar enhanced durability trends observed against all tested variants*

vs.

Published mRNA Antibody Titers vs. Wuhan





[Gilboa et al., 2022]

Neutralizing antibodies after the 3rd dose – compares with target regimen for Cohort 3

- ~77% reduction in GMT against Wuhan after only 4 months vs. peak immune responses
- More aggressive decline in durability seen against other variants tested in study, including Omicron, with 4x–10x lower titers 4 months after 3rd vaccination

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 pan-coronavirus vaccine candidate (VBI-2901)
- ☑ Sept 2023 : Interim Phase 1 data announced demonstrating VBI-2901 was well-tolerated and induced broad and durable protective titers against variants of concern
- ❑ 2024 : Additional data expected from Phase 1 study

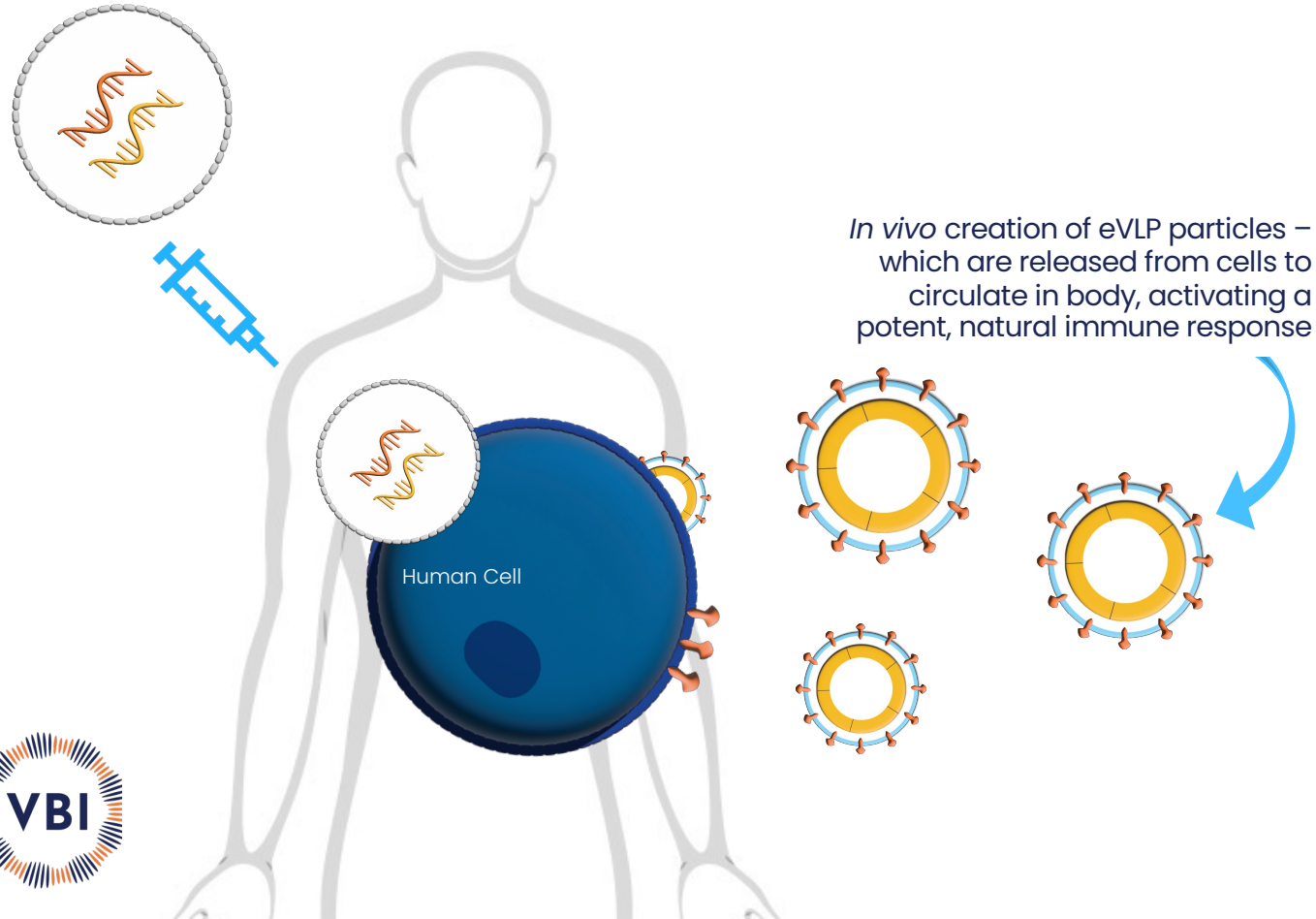
VBI

MLE Platform

mRNA-Launched eVLP Technology

mRNA-Launched eVLPs (MLE) : Novel Approach to Particulate Vaccines

VBI's MLE vaccine candidates deliver genetic code for target antigens, in addition to code for a structural viral protein (Gag Protein) to the immune system. The addition of this protein – the same protein at the core of VBI's eVLPs – teaches cells to create eVLPs *in vivo*, which circulate in the body and provoke potent B-cell and T-cell immune responses



In vivo creation of eVLP particles – which are released from cells to circulate in body, activating a potent, natural immune response

Additional MLE platform benefits:

Potent Functional Immunity

- Elicits enhanced functional neutralizing antibodies
- Induces generation of polyfunctional CD4 and CD8 T-cell responses

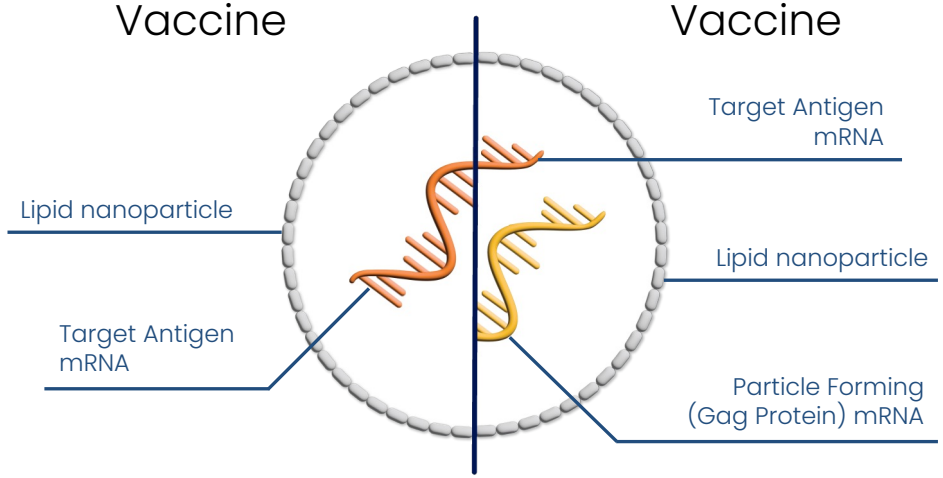
Efficient & Customizable

- Fast manufacturing timelines – similar to other known mRNA vaccine production platforms
- Building upon flexibility of eVLP platform, target antigens can be expressed both internally and externally

Recent & Upcoming Milestones

Potential for business development partnerships

VBI's MLE technology continues to be evaluated by potential partners



Recent & Upcoming Milestones

- ☑ Oct 2023 : Announced expansion of proprietary technology platforms with development of novel mRNA-launched eVLP ("MLE") program
- ☑ Apr 2024 : Announced expanded partnership with Canadian Government, supported by CAD$28M funding award, to advance MLE platform
- ❑ 2024 : MLE technology under evaluation by potential partners

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