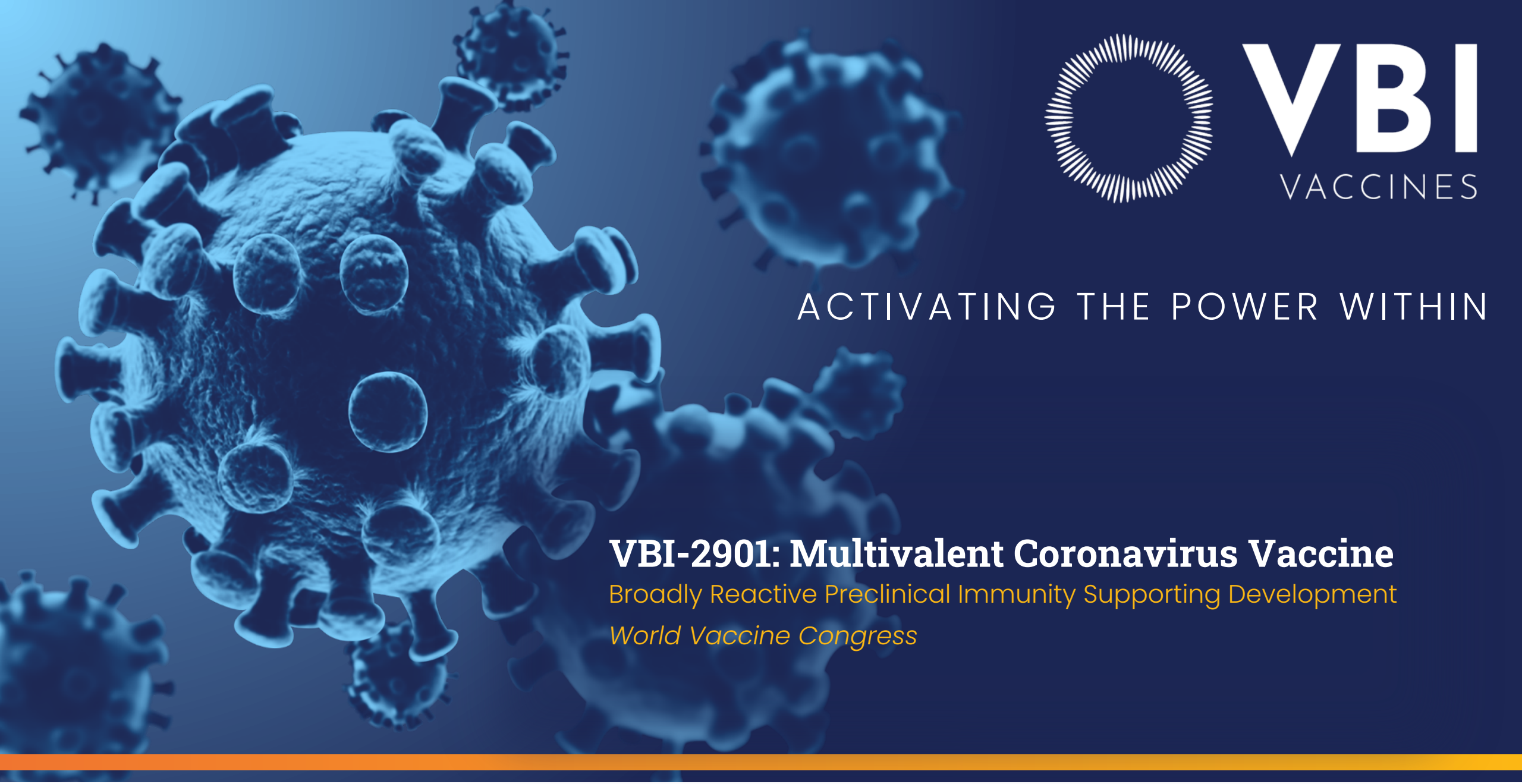


VBI VACCINES

ACTIVATING THE POWER WITHIN

VBI-2901: Multivalent Coronavirus Vaccine

Broadly Reactive Preclinical Immunity Supporting Development

World Vaccine Congress

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 ongoing COVID-19 pandemic on our clinical studies, manufacturing, business plan, and the global economy; the ability to successfully manufacture and commercialize PreHevbrio; 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; 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 7, 2022, and filed with the Canadian security authorities at sedar.com on March 7, 2022, 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.

eVLP Platform

Enveloped Virus Like Particle (eVLP) Platform

Ideal Platform to Leverage: eVLPs have Structural Homology with SARS-CoV2

eVLPs

Enveloped Virus-Like Particles

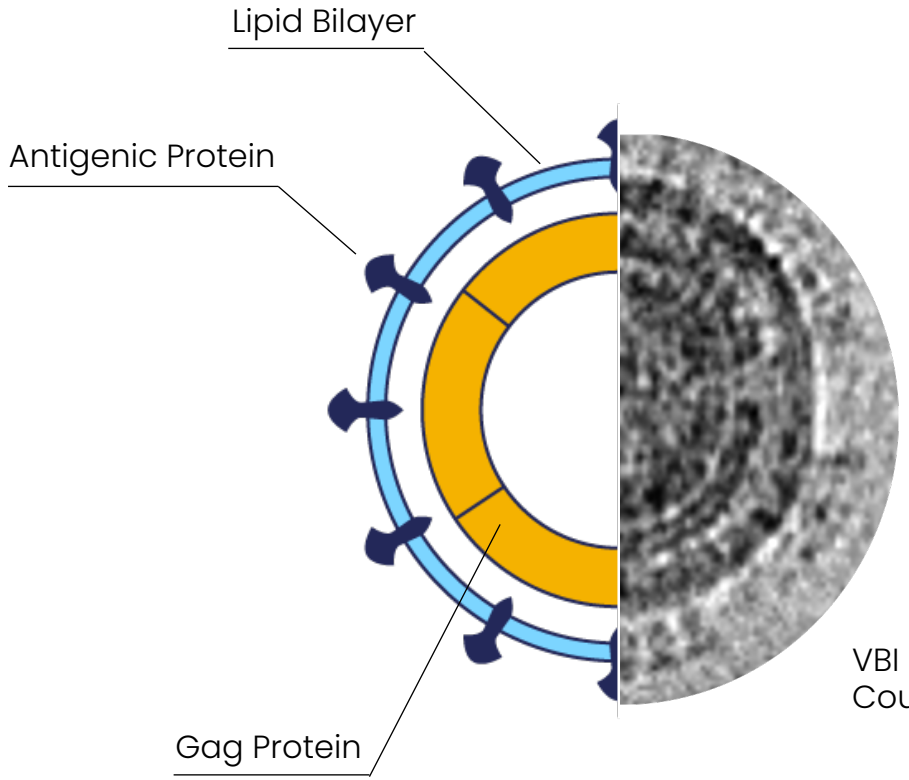
– VBI's Proprietary Platform Technology –

eVLPs expand the list of potentially-viable target indications by providing a stable core (Gag Protein) and lipid bilayer

Flexible and customizable

Highly immunogenic with demonstrated safety profile

A perfect match for enveloped viruses (such as coronaviruses)



VBI eVLP Image
Courtesy of Scripps Inst.

Multiple eVLP Candidates have Clinical Experience

VBI Pipeline: Balanced Portfolio of Therapeutic & Preventative Vaccines

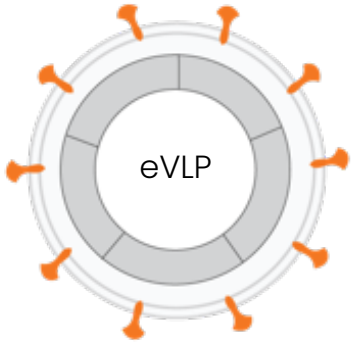
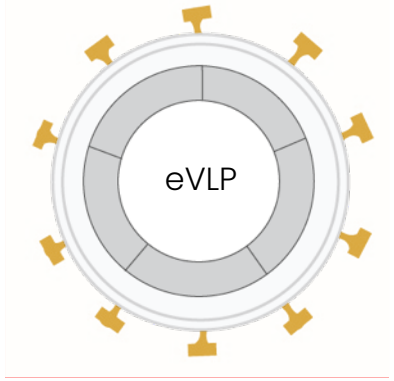
The eVLP Platform is a Foundation for the Majority of VBI's Clinical Programs

Disease	Name/Program	Technology	Preclinical	Phase 1	Phase 2	Phase 3	Registration/ Commercial
Approved Vaccines							
Hepatitis B (HBV)	PreHevbrio[1,2] Hepatitis B Vaccine (Recombinant)	VLP					
Therapeutic Candidates							
Hepatitis B (HBV)	VBI-2601 (BRII-179)	VLP					
Glioblastoma (GBM)	VBI-1901	eVLP					
Other Virus+ Tumors	Undisclosed	eVLP					
Prophylactic Candidates							
Cytomegalovirus (CMV)	VBI-1501	eVLP					
COVID-19 (Ancestral)	VBI-2902 (monovalent)	eVLP					
COVID-19 (Beta Variant)	VBI-2905 (monovalent)	eVLP					
Coronaviruses	VBI-2901 (multivalent)	eVLP					
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

VBI-2900 Program is Focused on Long-Term Protection Against Coronaviruses

Program Goals: Broad protection, exceptional safety, and durability of immune response

	VBI-2902 *Monovalent COVID-19*	VBI-2905 *Monovalent COVID-19 B.1.351 Variant*	VBI-2901 *Trivalent Pan-Coronavirus*
Schematic			
Construct Design	SARS-CoV-2 Ancestral/Wuhan spike antigen	SARS-CoV-2 Beta (B.1.351) spike antigen	SARS-CoV-1, MERS, and SARS-CoV-2 spike antigens
Adjuvant & Presentation	Alum adsorbed, liquid @ 4-8C with stability > 2 years (based on platform data)		
TPP/Development Rationale	• Human proof-of-concept vs. ancestral strain	• Demonstration of strain specific immunity as booster	• Broad protection • Safe & well tolerated • Ideal for VoCs and potential for emerging variants/future zoonotic

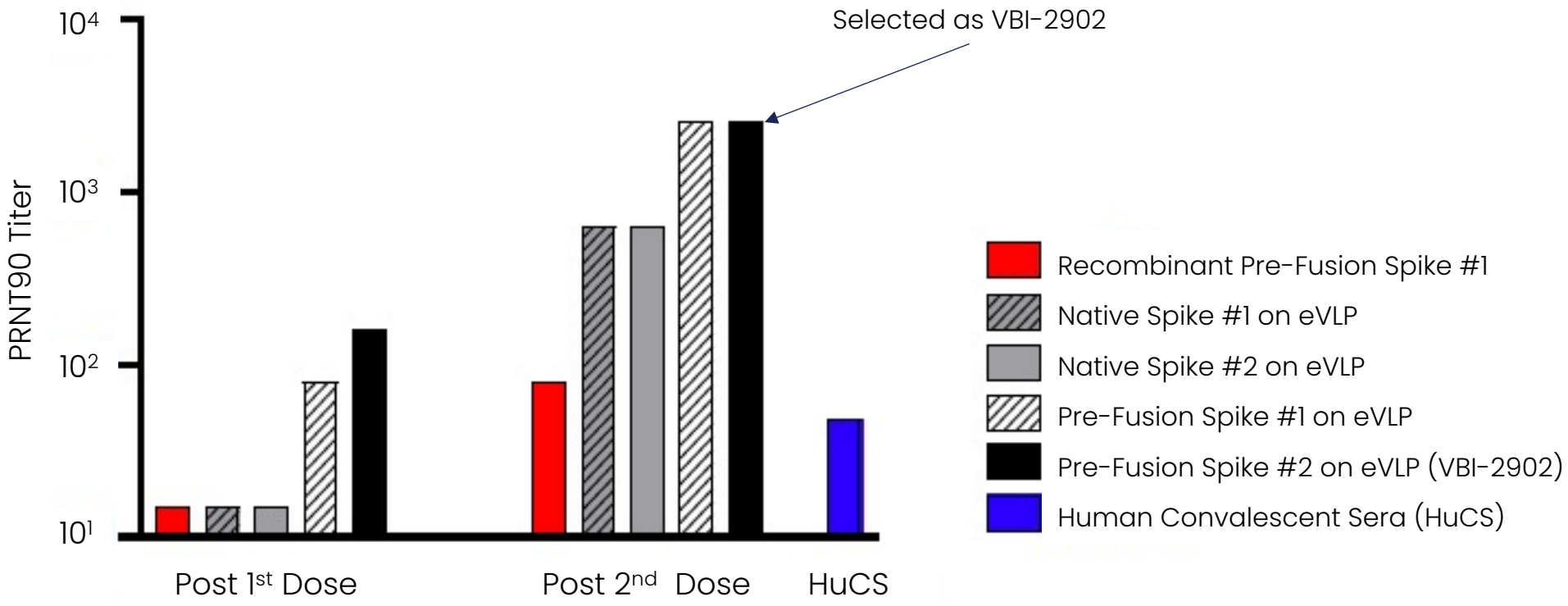
VBI's coronavirus pipeline is supported by partnerships with :

Canada NRC · CNRC CEPI

VBI-2902 : Human Proof-of-Concept vs. SARS-CoV-2 Ancestral/Wuhan Strain

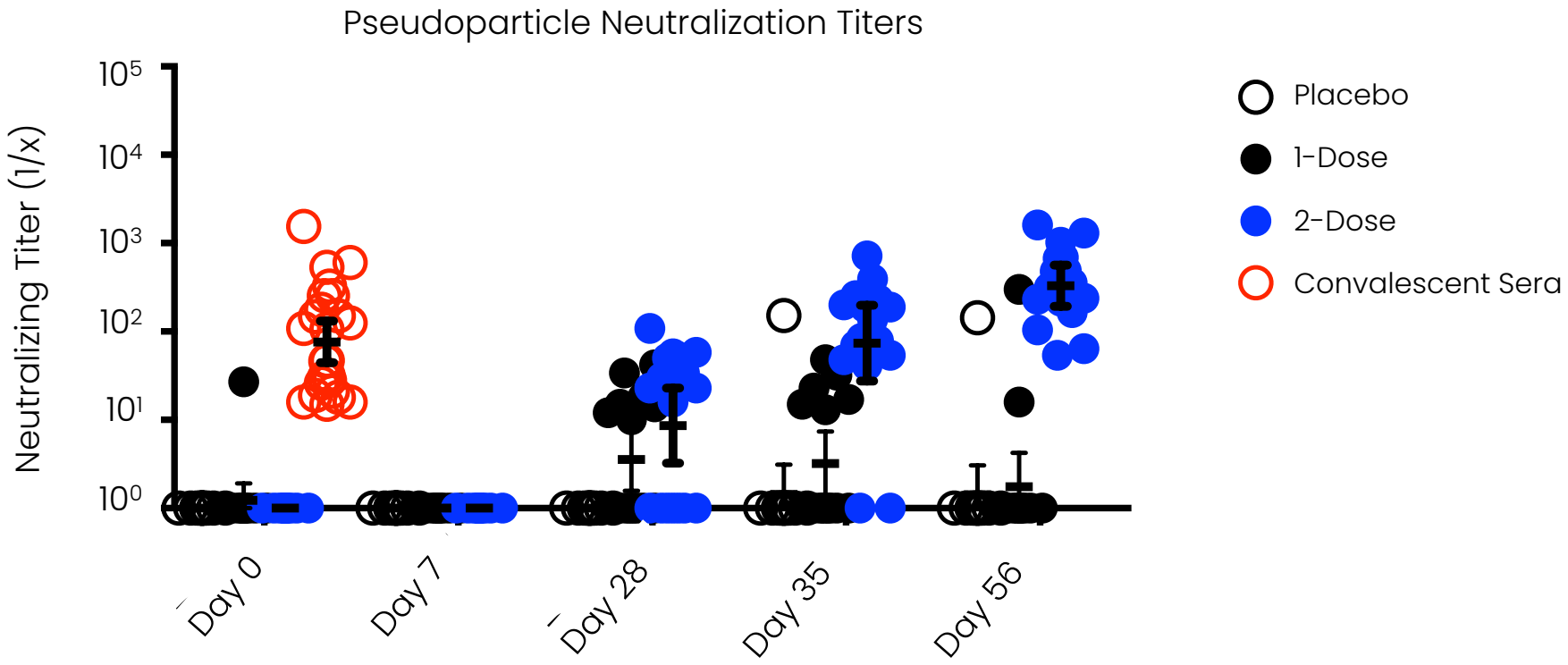
Preclinical Data from VBI-2902 Candidate Confirmed Value of eVLP Presentation

Preclinical data demonstrated superior immunogenicity of matched-Spike protein on eVLPs vs. standard recombinant protein (both Alum adjuvanted)



VBI-2902a Clinical Data Update

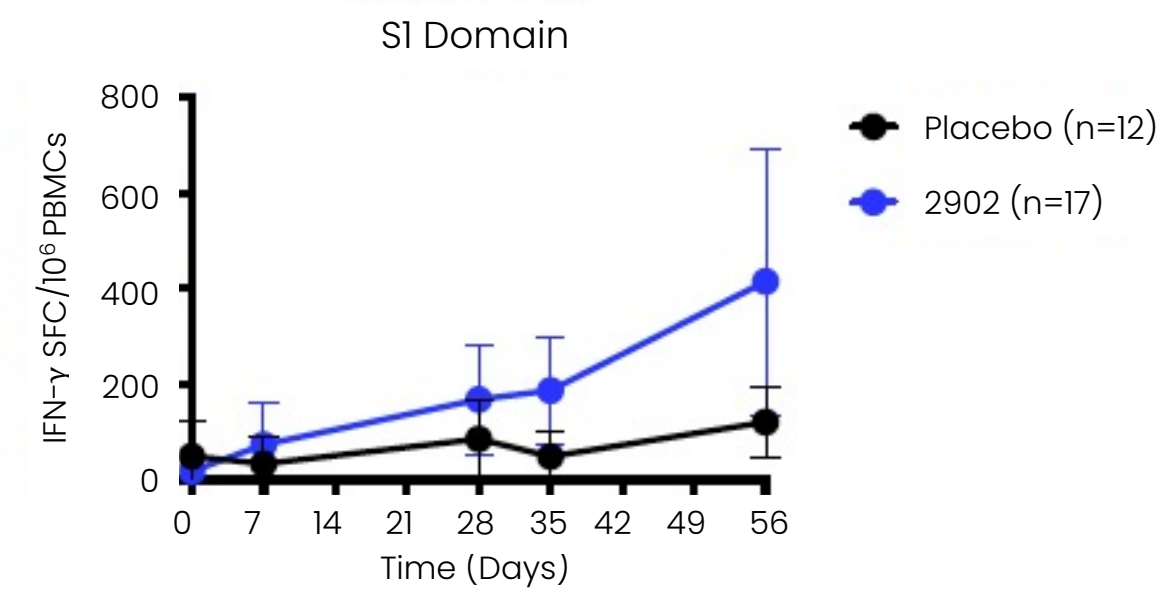
PNA50 neutralizing antibody titers project a high degree of efficacy (> 90%)

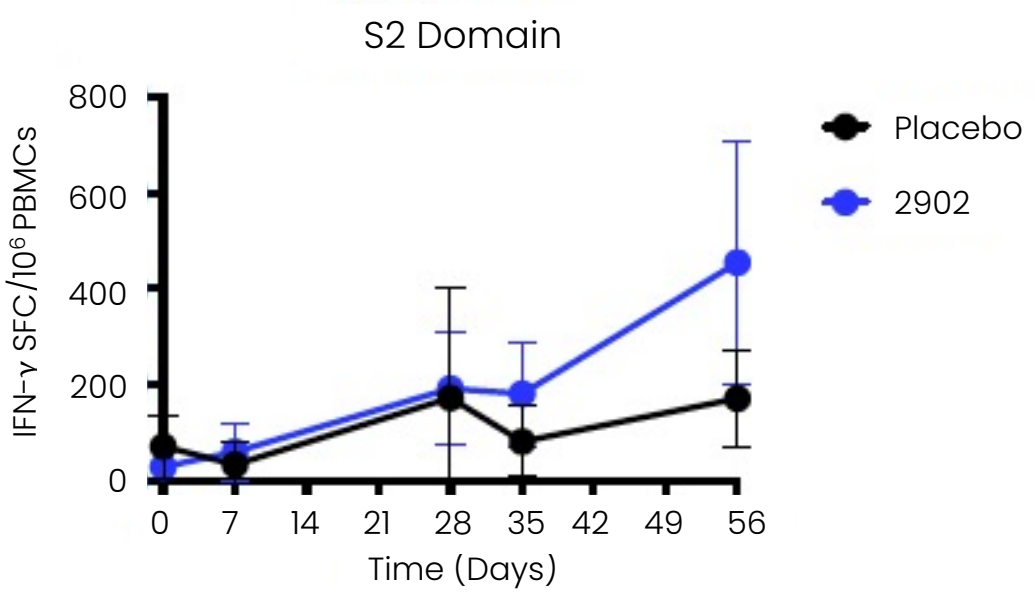


WHO normalized, validated PNA assay, sera tested 28 days after a 2nd dose in seronegative subjects (Gilbert PB, 2021):

Moderna:	83 IU50/ml → 90% efficacy
AZ:	140 IU50/ml → 90% efficacy
VBI:	176 IU50/ml

T-Cell Immunity is Induced Against Both S1 and S2 Domains of Spike Protein after 2 Doses of VBI-2902





VBI-2902 Demonstrates Clean Safety & Tolerability : No Grade 3 or 4 Events Observed

Local Reactogenicity:

Dose #2	Group G1 VBI-2902a + Placebo n=19	Group 2 VBI-2902a + VBI-2902a n=18	Group 3 Placebo n=18
Any, n (%)	6 (31.6)	12 (66.7)	8 (44.4)
Pain, n (%) Grade 1 Grade 2 Grade 3 Grade 4	4 (21.1) 4 (21.1) 0 0 0	11 (61.1) 10 (55.6) 1 (5.6) 0 0	8 (44.4) 8 (44.4) 0 0 0
Tenderness, n (%) Grade 1 Grade 2 Grade 3 Grade 4	5 (26.3) 5 (26.3) 0 0 0	10 (55.6) 7 (38.9) 3 (16.7) 0 0	5 (27.8) 3 (16.7) 2 (11.1) 0 0
Redness, n (%)	0	0	0
Swelling, n (%)	0	0	0
Itchiness, n (%)	0	0	0

- VBI-2902 was **well-tolerated** with no safety signals observed
- Reactogenicity was mild-to-moderate and lasted for 1-2 days
- **There was no increase in reactogenicity with subsequent doses**

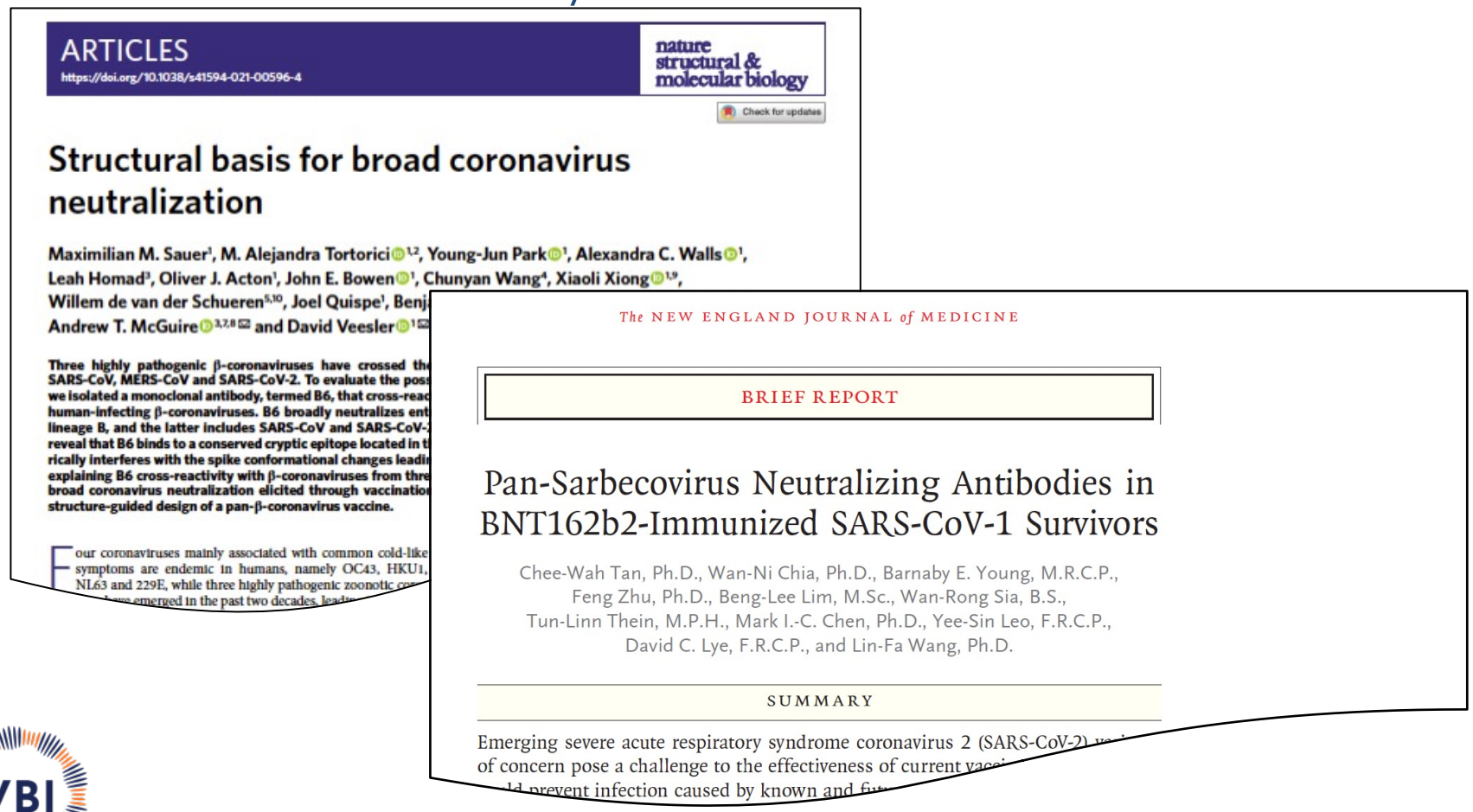
Systemic Reactogenicity:

Dose #2	Group G1 VBI-2902a + Placebo n=19	Group 2 VBI-2902a + VBI-2902a n=18	Group 3 Placebo n=18
Any, n (%)	7 (36.8)	10 (55.6)	10 (55.6)
Fatigue, n (%) Grade 1 Grade 2 Grade 3/4	7 (36.8) 4 (21.1) 3 (15.8) 0	4 (22.2) 2 (11.1) 2 (11.1) 0	5 (27.8) 3 (16.7) 2 (11.1) 0
Fever, n (%) Grade 1 Grade 2 Grade 3/4	0	0	1 (5.6) 1 (5.6) 0 0
Headache, n (%) Grade 1 Grade 2 Grade 3/4	0	7 (38.9) 6 (33.3) 1 (5.6) 0	5 (27.8) 4 (22.2) 1 (5.6) 0
Myalgia, n (%) Grade 1 Grade 2 Grade 3/4	1 (5.3) 1 (5.3) 0 0	4 (22.2) 3 (16.7) 1 (5.6) 0	4 (22.2) 2 (11.1) 2 (11.1) 0
Nausea / Vomiting, n (%) Grade 1 Grade 2 Grade 3/4	0	0	1 (5.6) 1 (5.6) 0 0
Diarrhea, n (%) Grade 1 Grade 2 Grade 3/4	1 (5.3) 1 (5.3) 0 0	0	1 (5.6) 1 (5.6) 0 0

Trivalent eVLP Candidate (VBI-2901) vs. Ancestral (VBI-2902) and Beta (VBI-2905) Monovalent Candidates

Despite Current Challenges: Data Suggests Broadly Reactive, Durable Immunity is Possible – Answer May Lie in the Past

- Sauer et al : Isolated broadly cross-reactive mAbs after immunizing with MERS, then SARS-CoV-2 vaccines
- Tan et al : Broad immunity found in SARS-1 survivors who had been vaccinated with SARS-CoV-2 vaccine



ARTICLES
https://doi.org/10.1038/s41594-021-00596-4
nature structural & molecular biology

Structural basis for broad coronavirus neutralization

Maximilian M. Sauer, M. Alejandra Tortorici, Young-Jun Park, Alexandra C. Walls, Leah Homad, Oliver J. Acton, John E. Bowen, Chunyan Wang, Xiaoli Xiong, Willem de van der Schueren, Joel Quispe, Benj... Andrew T. McGuire and David Veesler

Three highly pathogenic β-coronaviruses have crossed th... SARS-CoV, MERS-CoV and SARS-CoV-2. To evaluate the poss... we isolated a monoclonal antibody, termed B6, that cross-reac... human-infecting β-coronaviruses. B6 broadly neutralizes ent... lineage B, and the latter includes SARS-CoV and SARS-CoV-... reveal that B6 binds to a conserved cryptic epitope located in t... rically interferes with the spike conformational changes leadi... explaining B6 cross-reactivity with β-coronaviruses from thre... broad coronavirus neutralization elicited through vaccinatio... structure-guided design of a pan-β-coronavirus vaccine.

Four coronaviruses mainly associated with common cold-like... symptoms are endemic in humans, namely OC43, HKU1, NL63 and 229E, while three highly pathogenic zoonotic ... have emerged in the past two decades, leadi...

The NEW ENGLAND JOURNAL of MEDICINE

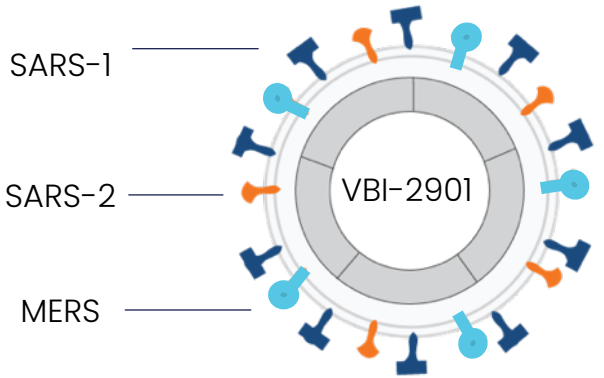
BRIEF REPORT

Pan-Sarbecovirus Neutralizing Antibodies in BNT162b2-Immunized SARS-CoV-1 Survivors

Chee-Wah Tan, Ph.D., Wan-Ni Chia, Ph.D., Barnaby E. Young, M.R.C.P., Feng Zhu, Ph.D., Beng-Lee Lim, M.Sc., Wan-Rong Sia, B.S., Tun-Linn Thein, M.P.H., Mark I.-C. Chen, Ph.D., Yee-Sin Leo, F.R.C.P., David C. Lye, F.R.C.P., and Lin-Fa Wang, Ph.D.

SUMMARY

Emerging severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) ... of concern pose a challenge to the effectiveness of current vacci... ...ld prevent infection caused by known and fu...



Sources: [1]https://www.nature.com/articles/s41586-021-03696-9 ; [2]https://www.nejm.org/doi/full/10.1056/NEJMoa2108453?query=featured_home

Sequence Homology of VBI-2900 Vaccine Candidates

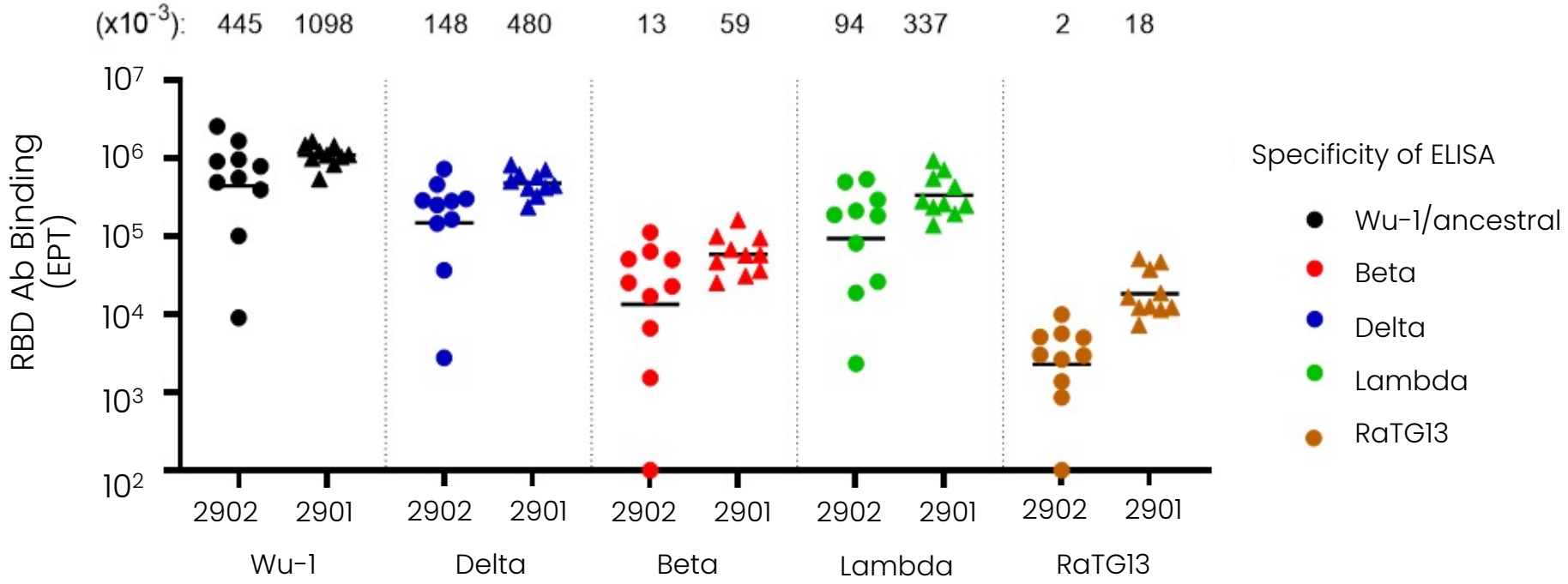
Spike sequence homology for VBI-2901 (Wu1, MERS, SARS), VBI-2902 (Wu1), and VBI-2905 (Beta) as they relate to not only previous & currently circulating variants, but also bat (RaTG13) and pangolin (Pan-GX, Pan-GD) coronaviruses distant to circulating human strains

	MERS	Pan-GX	RaTG13	Pan-GD	Delta	Kappa	C.1.2	Beta	Lambda	Wu1	Alpha	Rs4231	SARS1
MERS	100.00	20.45	20.45	20.45	20.45	20.45	20.45	20.45	20.91	20.45	20.45	20.55	21.10
Pan-GX	20.45	100.00	87.89	87.89	85.65	86.10	86.10	86.55	86.10	86.55	86.55	76.13	75.11
RaTG13	20.45	87.89	100.00	89.69	90.13	89.69	90.13	89.69	89.69	90.13	90.13	76.13	75.11
Pan-GD	20.45	87.89	89.69	100.00	95.96	95.96	95.52	95.96	95.96	96.86	96.41	77.48	74.21
Delta	20.45	85.65	90.13	95.96	100.00	99.10	97.76	97.76	98.65	99.10	98.65	75.68	73.76
Kappa	20.45	86.10	89.69	95.96	99.10	100.00	98.21	98.21	98.65	99.10	98.65	75.68	73.30
C.1.2	20.45	86.10	90.13	95.52	97.76	98.21	100.00	99.10	97.76	98.65	99.10	75.68	72.85
Beta	20.45	86.55	89.69	95.96	97.76	98.21	99.10	100.00	97.76	98.65	99.10	76.13	73.30
Lambda	20.91	86.10	89.69	95.96	98.65	98.65	97.76	97.76	100.00	99.10	98.65	75.68	73.30
Wu1	20.45	86.55	90.13	96.86	99.10	99.10	98.65	98.65	99.10	100.00	99.55	76.13	73.30
Alpha	20.45	86.55	90.13	96.41	98.65	98.65	99.10	99.10	98.65	99.55	100.00	76.13	73.30
Rs4231	20.55	76.13	76.13	77.48	75.68	75.68	75.68	76.13	75.68	76.13	76.13	100.00	81.90
SARS1	21.10	75.11	75.11	74.21	73.76	73.30	72.85	73.30	73.30	73.30	73.30	81.90	100.00

Key Point: VBI-2902 & VBI-2901 share the same Wu1/ancestral SARS-CoV-2 Spike sequence. Addition of MERS & SARS-1 are highly divergent from currently circulating strains

VBI-2901a (Trivalent) PreClinical PoC Data

Trivalent 2901 candidate offers superior breadth relative to monovalent 2902 –trivalent consistently out-performs 2902 on its own turf (strain-matched)



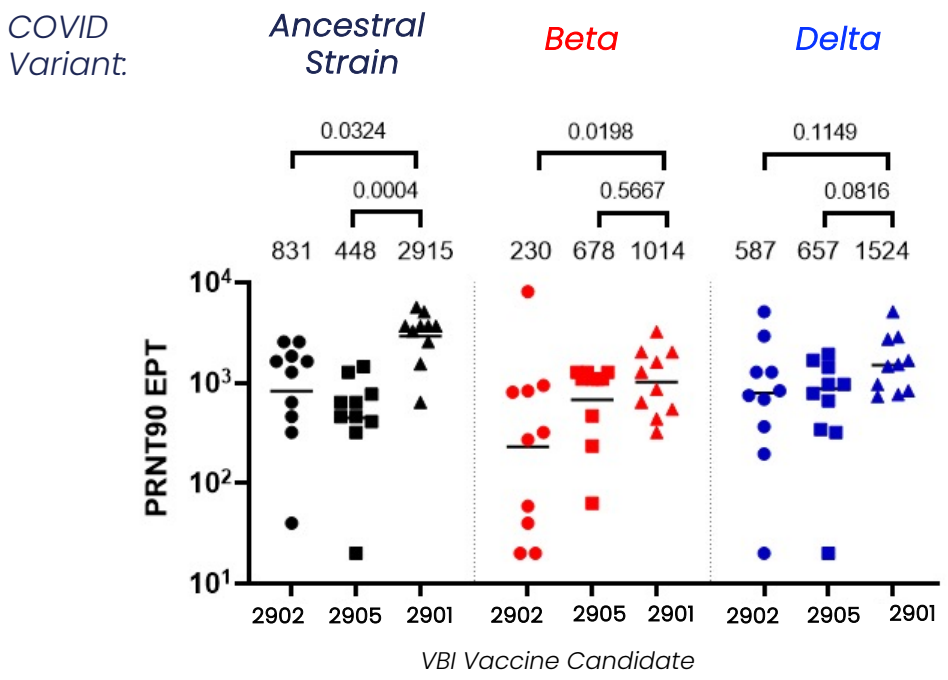
VBI-2901 offered 2-9X higher RBD binding antibodies than VBI-2902

Trivalent VBI-2901 Induced Robust Neutralizing Titers Against an Extended Panel of Variants in Mice

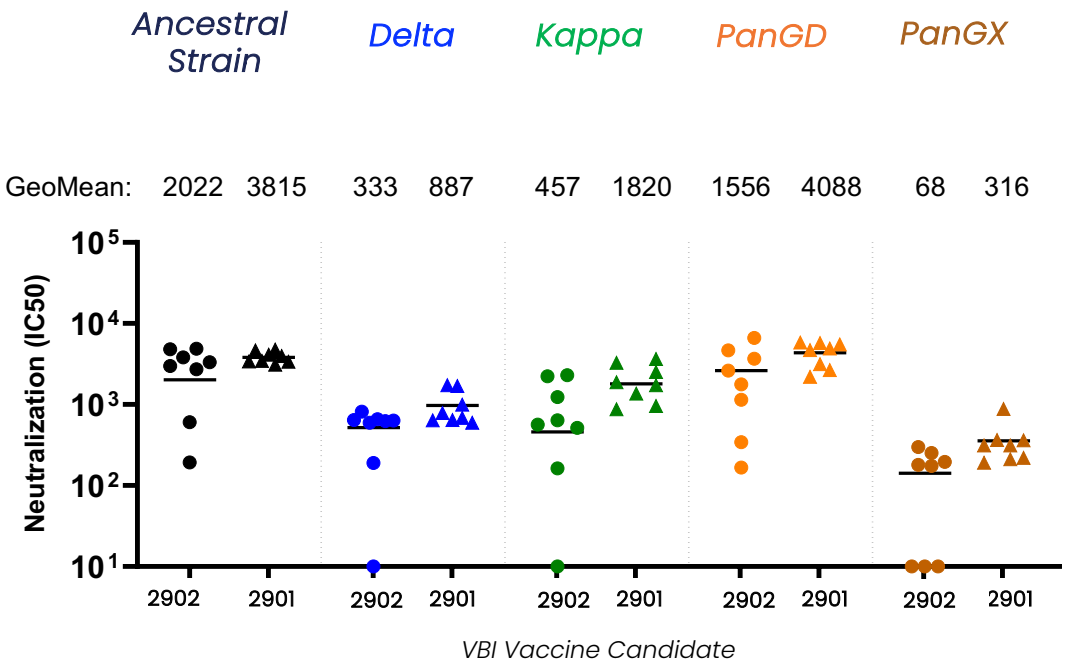
Neutralizing responses elicited by VBI-2901 are 2-5X higher than VBI's ancestral (2902) and Beta (2905) monovalent candidates

Neutralizing Antibody Activity

Data measured using plaque reduction neutralization test (PRNT)



Data measured using pseudoparticle neutralization assay



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 of EPT measured by PRNT90, 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.

VBI-2901 Golden Hamster Challenge Data vs. Ancestral SARS-CoV-2

VBI-2901 offered strong protection with highly significant reduction in viremia in lungs & nasal shedding

- Despite dose and strain matching, VBI-2901 (trivalent) offered stronger protection in ancestral challenge vs VBI-2902 (monovalent, ancestral)
- Breadth appears to have clinical benefit in animals
- Reduction in nasal viremia may offer transmission benefit

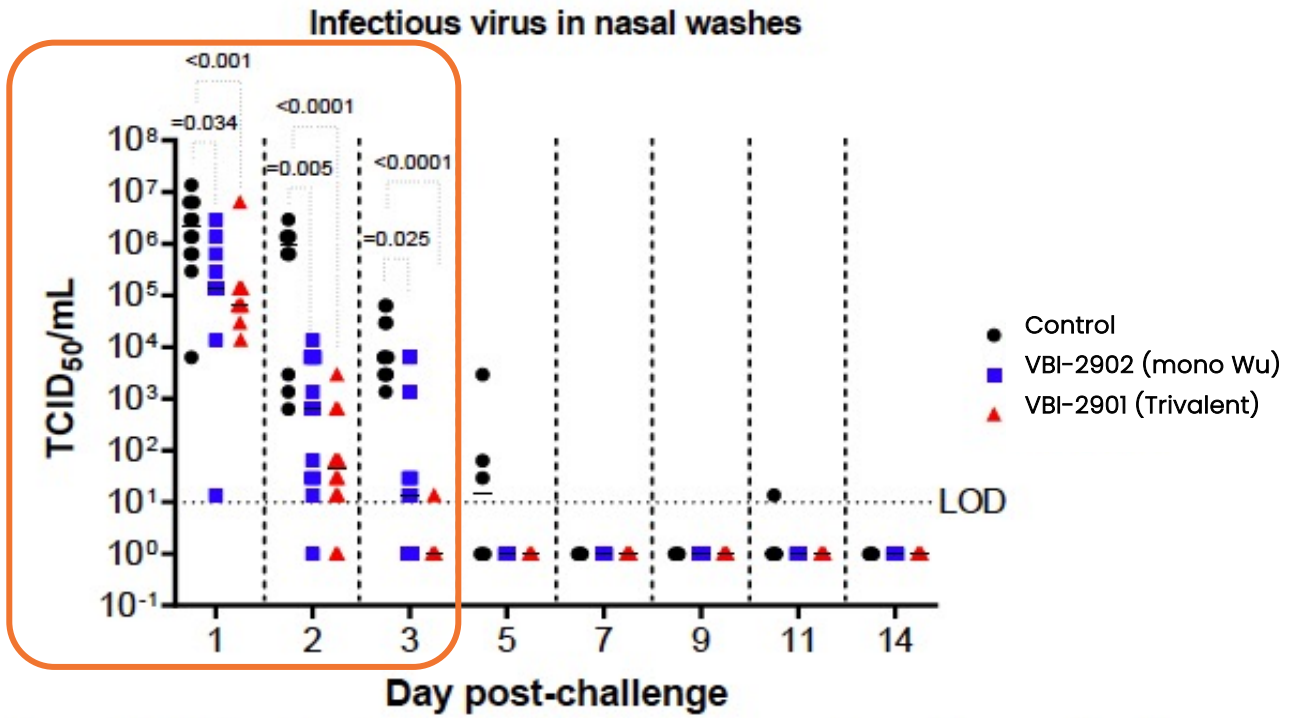


Figure 12. Infectious virus in nasal washes. Infectious virus was detected using a cell culture method. All nasal wash samples collected from 1, 2 and 3 dpc were examined (10a; n=12). For 5, 7, 9, 11 and 14 dpc, infectious virus was examined on qRT-PCR positive samples plus selected negative controls (10b; n=6). All animals were challenged on Day 0. Each dot represents one animal. Horizontal bars represent medians. Group A=Saline control; Group B=VBI-2902a; Group C=VBI-2901e; LOD=limit of detection. Zero values are included as 1 values for graphing purposes.

VBI-2900 Program Summary & Next Steps

eVLP Benefits

- ✓ Strong immune responses when compared to standard recombinants
- ✓ Multivalency allows for broadly reactive vaccines

Proof-of-Concept Data Obtained

- ✓ Highly potent immunogenicity, comparable to licensed vaccines
- ✓ Low clinical doses (5ug) & no requirement for novel adjuvants
- ✓ Exceptional safety/tolerability profile typical of alum-adjuvanted subunit vaccines
- ✓ Preclinical data demonstrated improvement of VBI-2901 over monovalent eVLPs

Future Development

- ❑ Continued testing of breadth vs. emerging variants
- ❑ **Summer 2022** : First clinical study of VBI-2901 expected to initiate

Acknowledgements :

VBI Canada NRC · CNRC CEPI

VBI Vaccines Inc. | www.vbivaccines.com