

INVESTOR PRESENTATION

NASDAQ: PDSB | March 2022



PDS Biotechnology

Precision Designed Science For Immunotherapy

Forward-Looking Statements

This presentation contains forward-looking statements about PDS Biotechnology Corporation (“PDSB”), and its businesses, business prospects, strategies and plans, including but not limited to statements regarding anticipated pre-clinical and clinical drug development activities and timelines and market opportunities. All statements other than statements of historical facts included in this presentation are forward-looking statements. The words “anticipates,” “may,” “can,” “plans,” “believes,” “estimates,” “expects,” “projects,” “intends,” “likely,” “will,” “should,” “to be,” and any similar expressions or other words of similar meaning are intended to identify those assertions as forward-looking statements. These forward-looking statements involve substantial risks and uncertainties that could cause actual results to differ materially from those anticipated.

Factors that may cause actual results to differ materially from such forward-looking statements include those identified under the caption “Risk Factors” in the documents filed with the Securities and Exchange Commission (“SEC”) from time to time, including its Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this presentation. Except to the extent required by applicable law or regulation, PDSB undertakes no obligation to update the forward-looking statements included in this presentation to reflect subsequent events or circumstances.

Company Overview

1

Clinical-stage Company developing molecularly targeted immunotherapies to treat cancer and infectious disease

2

Versamune[®] and Infectimune[™] platforms leverage the body's own defense systems to induce disease-specific killer T-cells and antibodies to combat cancer and infectious disease

3

The initial concept for Versamune[®] and Infectimune[™] was developed by Prof. Leaf Huang PH.D., a world renowned pioneer in nanoparticle drug delivery

4

Four Phase 2 oncology clinical trials with multiple readouts anticipated in Q2/Q3

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Clinical partnerships with Merck, MD Anderson Cancer Center, National Cancer Institute and Mayo Clinic

6

Debt free with approximately **\$65.2M** in cash (unaudited) as of December 31, 2021

A 3D rendering of a cell cluster, likely representing a tumor or a specific cell type, rendered in a light teal color. The cells are interconnected and form a dense, irregular mass. The background is a dark teal gradient. A semi-transparent white rectangular box with rounded corners is overlaid on the right side of the image, containing the text.

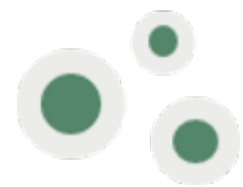
Versamune®

Oncology Platform

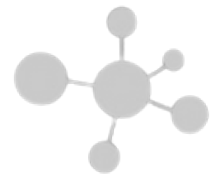
The PDS Biotech Differentiation

Versamune[®] is designed to promote powerful, CD8+ killer T-cell responses *in vivo*

Versamune[®]-based therapies also show promising potential to:



Generate the right type and quantity of effective CD8+ killer T-cells



Generate memory T-cells, to enhance durability of response



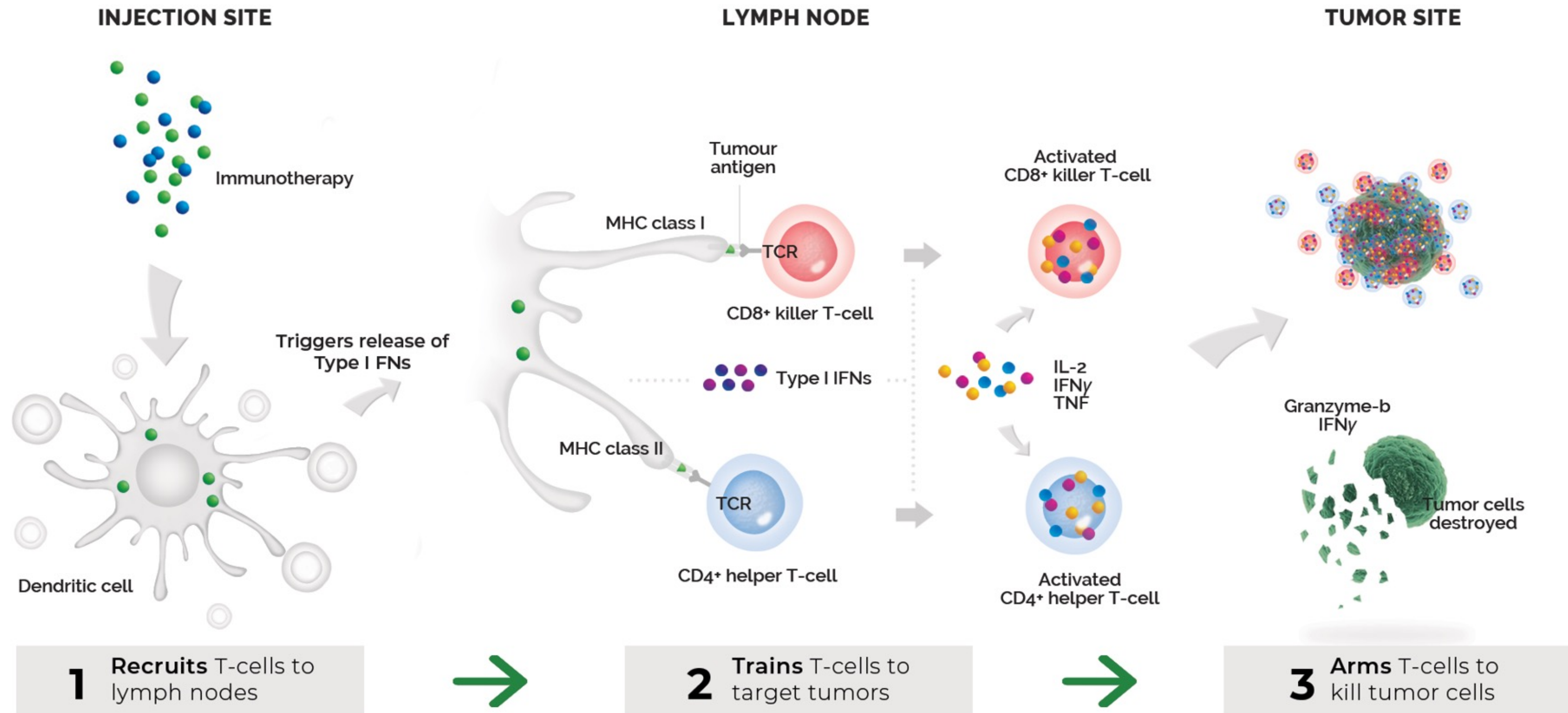
Generate potency without serious systemic side effects

15-30%

Success in checkpoint inhibitor treatments due to low CD8+ T-cell response*

Versamune® Platform

Designed to Recruit, Train and Arm T-cells in the Body



Versamune® Platform

Versamune®-based oncology pipeline is being developed in partnership with the leaders in immuno oncology

Candidate	Indication	Combination	PC	P1	P2	P3	R	Partner(s)	
PDS0101 (HPV16) <i>VERSATILE-002</i>	Recurrent/metastatic HPV16-positive head and neck cancer <u>Arm 1:</u> CPI naïve 1st line treatment <u>Arm 2:</u> CPI refractory 2nd or 3rd line treatment	KEYTRUDA (standard of care)	PDS Biotech Funded						MERCK
PDS0101 (HPV16) <i>NCI-led Triple Combination</i>	HPV-positive anal, cervical, head and neck, penile, vaginal, vulvar cancers <u>Arm 1:</u> CPI naïve 2nd line treatment <u>Arm 2:</u> CPI refractory 3rd line treatment	Bintrafusp and M9241	Partner Co-Funded						NIH NATIONAL CANCER INSTITUTE
PDS0101 (HPV16) <i>IMMUNOCERV</i>	1st line treatment of locally advanced (IB3-IVA) cervical cancer	Chemo-radiation (standard of care)	Partner Co-Funded						THE UNIVERSITY OF TEXAS MD Anderson Cancer Center
PDS0101 (HPV16) <i>Mayo Clinic</i>	Pre-metastatic HPV-associated oropharyngeal cancer (OPSCC) <u>Arm 1:</u> PDS0101 monotherapy <u>Arm 2:</u> PDS0101 + KEYTRUDA	KEYTRUDA (standard of care)	Partner Co-Funded						MAYO CLINIC
PDS0102 (TARP)	TARP-associated AML, prostate and breast cancers	TBD	Partner Co-Funded						NIH NATIONAL CANCER INSTITUTE
PDS0103 (MUC1)	MUC-1 associated breast, colon, lung, ovarian and other cancers	TBD	Partner Co-Funded						NIH NATIONAL CANCER INSTITUTE
PDS0104 (TRP2)	Melanoma	TBD	PDS Biotech Funded						

PDS0101: Lead Asset

Designed to treat human papillomavirus (HPV16)-associated cancers

\$6B Market Opportunity¹

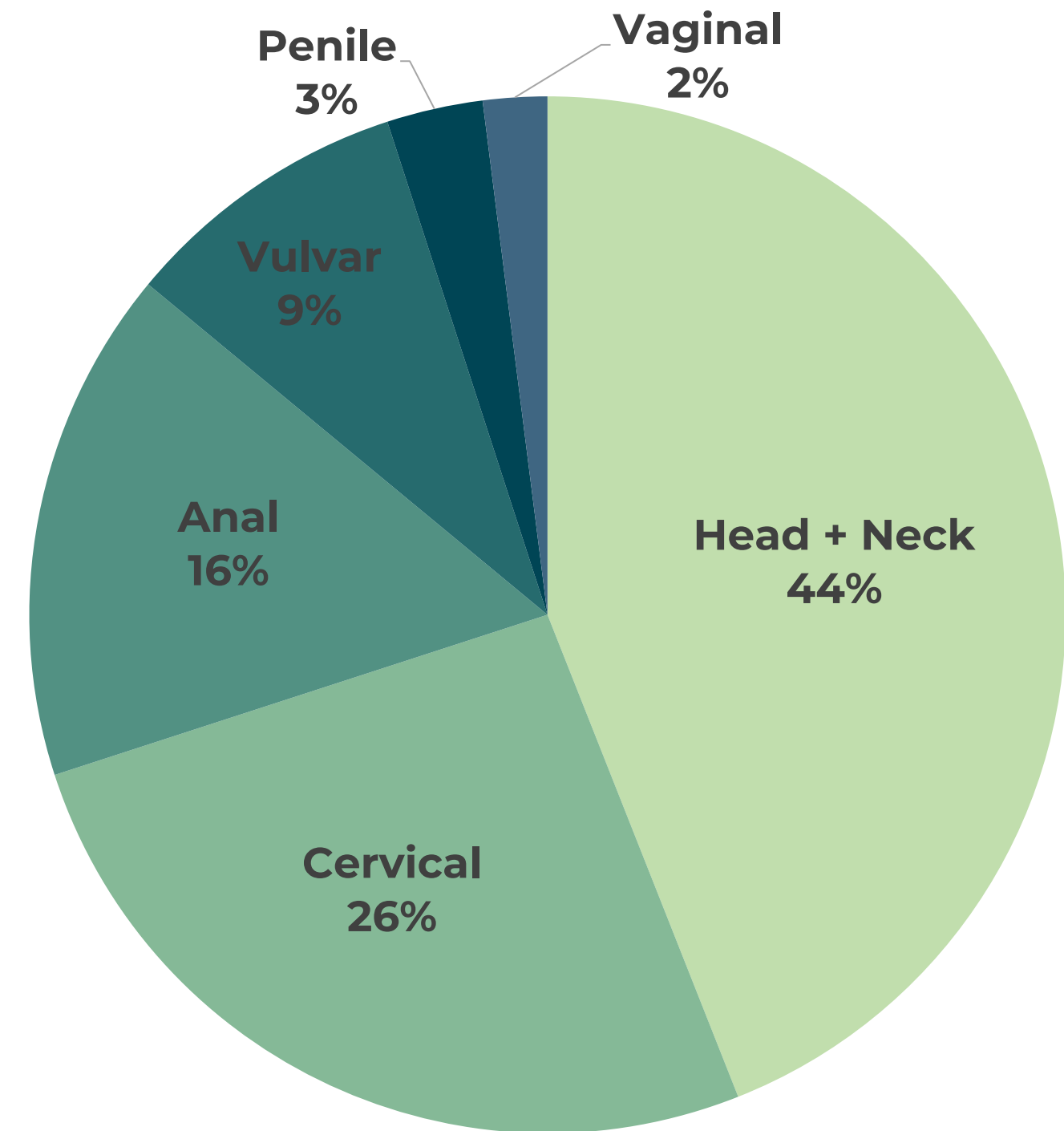
More than 46,000² patients were estimated to have been diagnosed last year with HPV-associated cancers in the US^{1,2}

HPV vaccination is not expected to impact the rate of HPV-related cancer incidence for decades

Existing immunotherapies cost \$150,000+ annually per patient¹

¹Company estimates based on CDC data. Assessments have not been adjusted to reflect HPV16-expression
²CDC website


US HPV-associated cancer incidence²



Reference: Data on file.

Phase 2: PDS0101 + M9241 + Bintrafusp alfa

Investigator-led trial evaluating the combination in patients with advanced refractory HPV-associated cancers

Indication	Treatment of patients with HPV16-associated cancer who have failed prior treatment
Clinical Agents	<u>Bintrafusp alfa</u> : Bifunctional fusion protein targeting TGF- β and PD-L1 <u>M9241 (NHS-IL12)</u> : Antibody-conjugated immunocytokine <u>PDS0101</u> : Versamune [®] -based immunotherapy generating HPV-specific CD8+ and CD4+ T-cells
Study Goals	<u>Group 1</u> : Objective response rate (ORR) as second-line treatment in checkpoint inhibitor (CPI) naïve patients <u>Group 2</u> : ORR as third-line treatment in patients who have failed CPI therapy (CPI refractory)
Achieved	Preliminary efficacy & safety data presented at ASCO 2021
Timing	Detailed, updated efficacy data to be presented at a conference in 2022
Trial Partner	

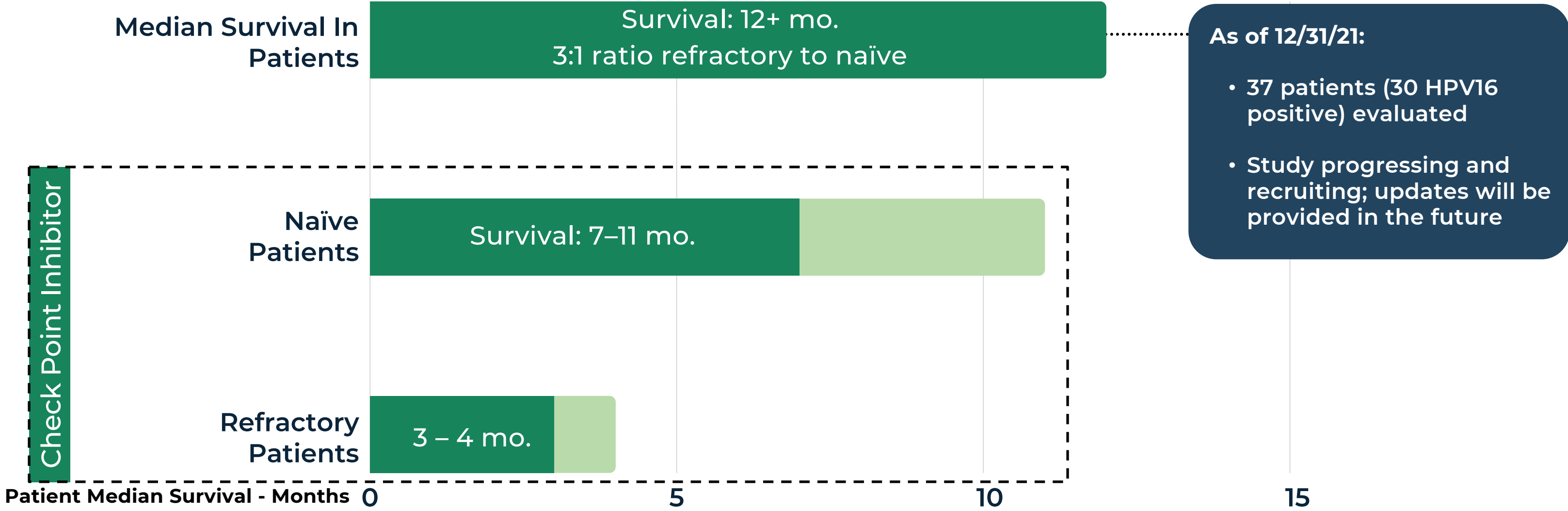
Confirmation that PDS0101 enhances the therapeutic benefit of checkpoint inhibitors could expand evaluation of Versamune[®]-based therapies in multiple cancer indications

PDS0101: Triple Combination

Promising survival of patients with advanced refractory HPV16-associated cancers

PDS0101 + Bintrafusp alfa + M9241

Indications targeted in study—cervical, anal, head and neck, vaginal, penile

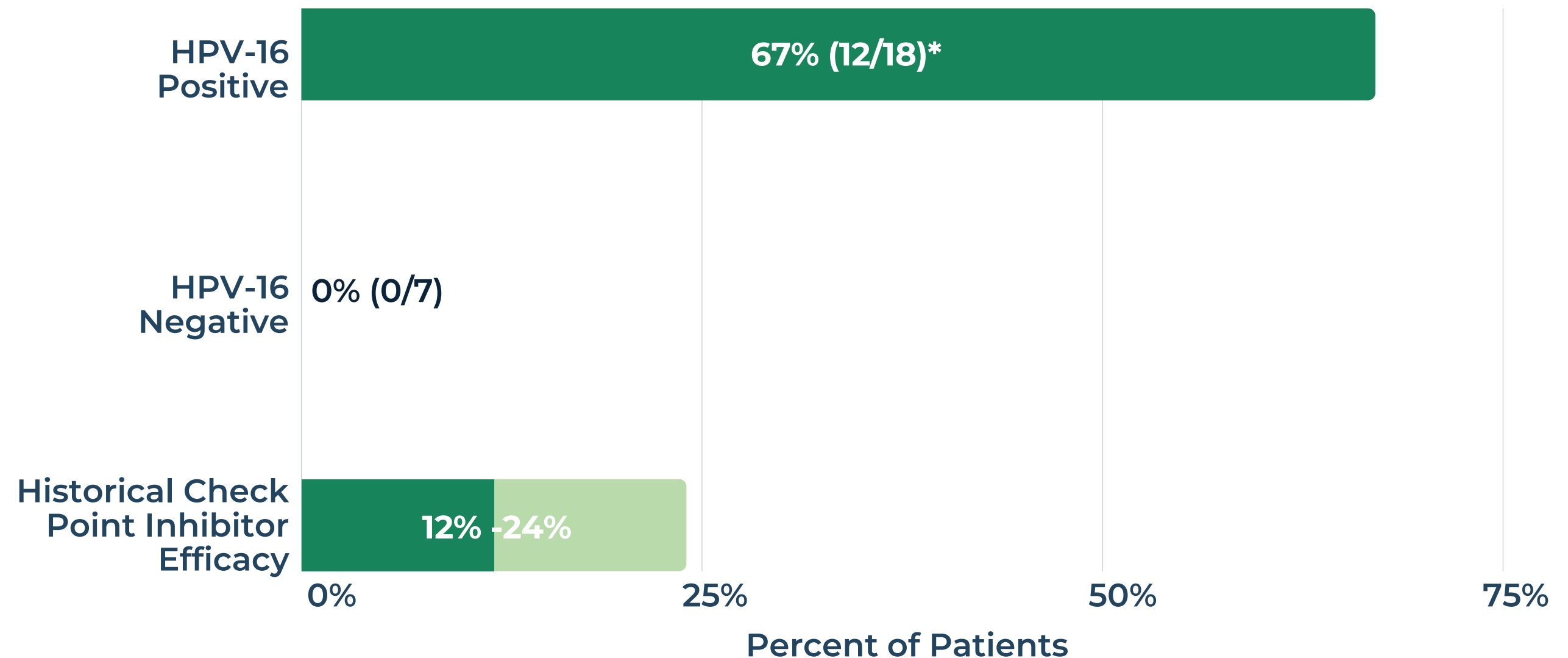


PDS0101: Triple Combo

Versamune[®] induced HPV-16
CD8+ killer T-cells

Triple Combo: PDS0101 + bintrafusp alfa + M9241

Advanced cancer patients with tumor shrinkage who had failed prior therapy




*These numbers reflect data as of evaluation of 25 patients; numbers will change as more patients undergo evaluation, includes both CPI refractory and naïve patients.

Reference: Strauss J. et al. Phase II evaluation of the triple combination of PDS0101, M9241, and Bintrafusp alfa in patients with HPV 16 positive malignancies. Presented at: American Society of Clinical Oncology 2021 Annual Meeting; June 4-8, 2021; Virtual. Abstract: 2501.

Phase 2: PDS0101 + KEYTRUDA®

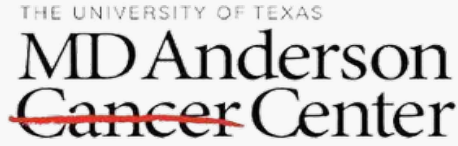
Company-sponsored trial for the treatment of HPV16-positive metastatic/recurrent head and neck cancer (VERSATILE-002)

Indication	Treatment of patients with HPV16-positive head and neck cancer whose cancer has spread or returned
Clinical Agents	<u>KEYTRUDA®(Standard of Care)</u> : Anti-PD1 checkpoint inhibitor (ORR ~20%) <u>PDS0101</u> : Versamune®-based immunotherapy generating HPV-specific CD8+ and CD4+ T-cells
Study Goals	<u>Group 1</u> : Objective response rate (ORR) as first-line treatment in checkpoint inhibitor (CPI) naïve patients <u>Group 2</u> : ORR in patients who have failed checkpoint inhibitor therapy (CPI refractory)
Achieved	Safety data presented at Head and Neck Symposium Q1 2022 Preliminary efficacy data released; achieved initial efficacy milestone Q1 2022 in Group 1
Timing	Detailed preliminary efficacy data to be presented at a conference in 2022
Trial Partner	

Confirmation that PDS0101 enhances the therapeutic benefit of checkpoint inhibitors could expand evaluation of Versamune®-based therapies in multiple cancer indications

Phase 2: PDS0101 + Chemoradiotherapy


Investigator-led trial evaluating the combination in patients with locally advanced cervical cancer (IMMUNOCERV)

Indication	Treatment of patients with locally advanced cervical cancer–Stages IB3-IVA
Clinical Agents	<u>Chemoradiotherapy (CRT –Standard of Care)</u> : Cisplatin and radiation therapy <u>PDS0101</u> : Versamune [®] -based immunotherapy generating HPV-specific CD8+ and CD4+ T-cells
Study Goals	Safety, rate of regression and local control in patients with primary tumor ≥5cm (n=35 patients)
Timing	Preliminary data anticipated late Q2/early Q3 2022
Trial Partner	 THE UNIVERSITY OF TEXAS MD Anderson Cancer Center

If successful, this study could support further investigation of Versamune[®]-based immunotherapies in combination with chemotherapy or CRT to treat multiple cancers

Phase 2: PDS0101 Monotherapy and in Comb. with KEYTRUDA®

Investigator-led trial evaluating treatments in patients with HPV-associated oropharyngeal cancer with high risk of recurrence

Indication	Treatment of patients with oropharyngeal cancer prior to transoral robotic surgery
Clinical Agents	<u>KEYTRUDA®</u> : Cisplatin and radiation therapy <u>PDS0101</u> : Versamune®-based immunotherapy generating HPV-specific CD8+ and CD4+ T-cells
Study Goals	Safety, rate of regression and local control in patients transoral robotic surgery
Timing	Approved by the IRB and anticipate enrollment will begin in Q1
Trial Partner	 MAYO CLINIC

If successful, this study could support the expansion of PDS0101 to earlier stage disease

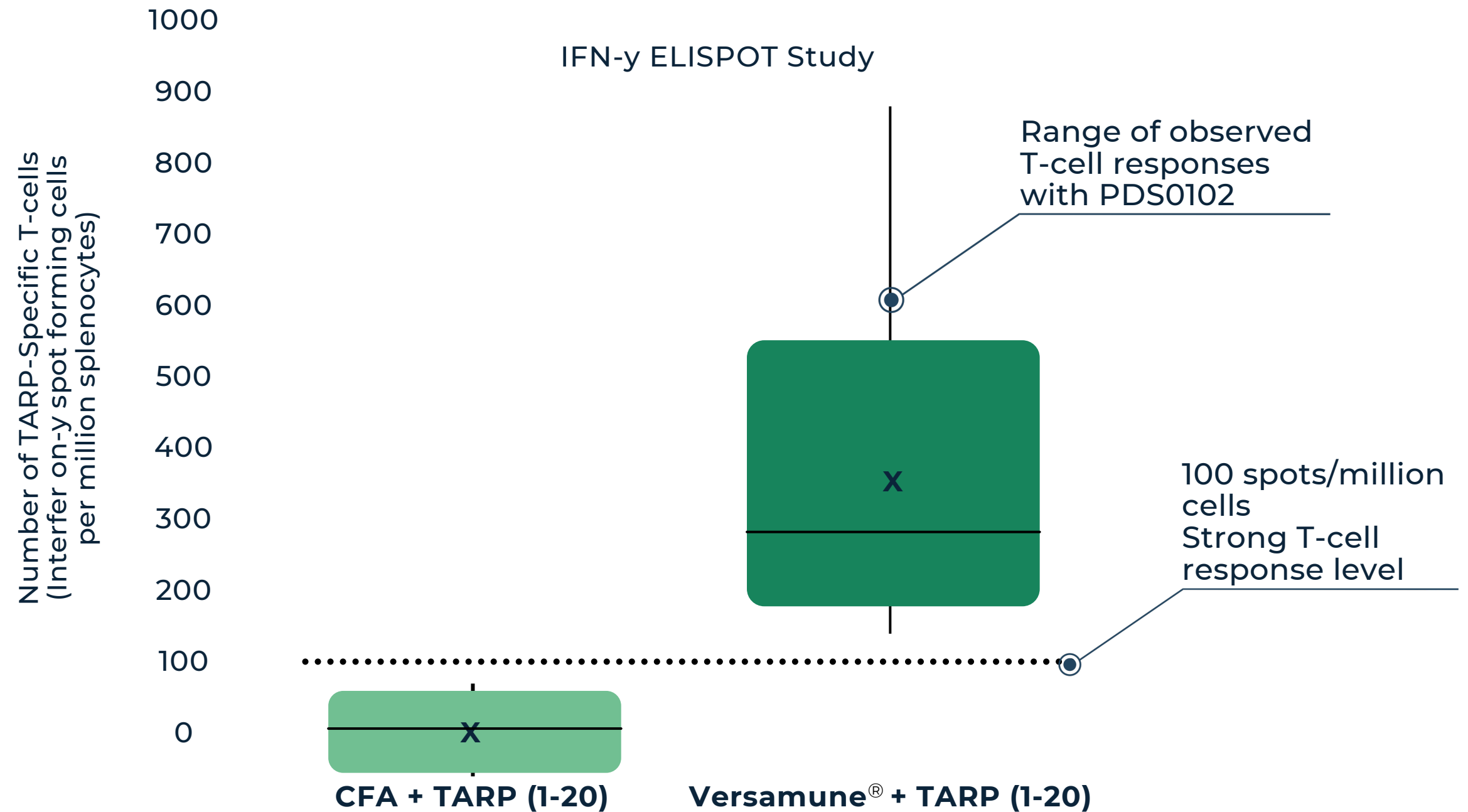
PDS0102: TARP Antigen

Versamune[®]-induced CD8+ killer T-cells may result in the ability to treat TARP positive AML and prostate cancers

\$40B TARP Total Market Opportunity*

Announced license with NCI TARP antigens

Pre-Clinical Optimization Studies¹: TARP-Specific T-cell Induction after 2 injections of PDS0102



¹ Reference: Wood LV et al, Oncoimmunology, 2016, Vol. 5 (8)
CFA –Complete Freund’s Adjuvant a highly potent immune activator not used in humans due to potentially lethal toxicity

*Reference: Surveillance Research Program, National Cancer Institute SEER
Assumes \$150K for annual course of therapy; in line with current immunotherapy treatment. Assessments have not been adjusted to reflect TARP expression, which is currently unknown by tumor type

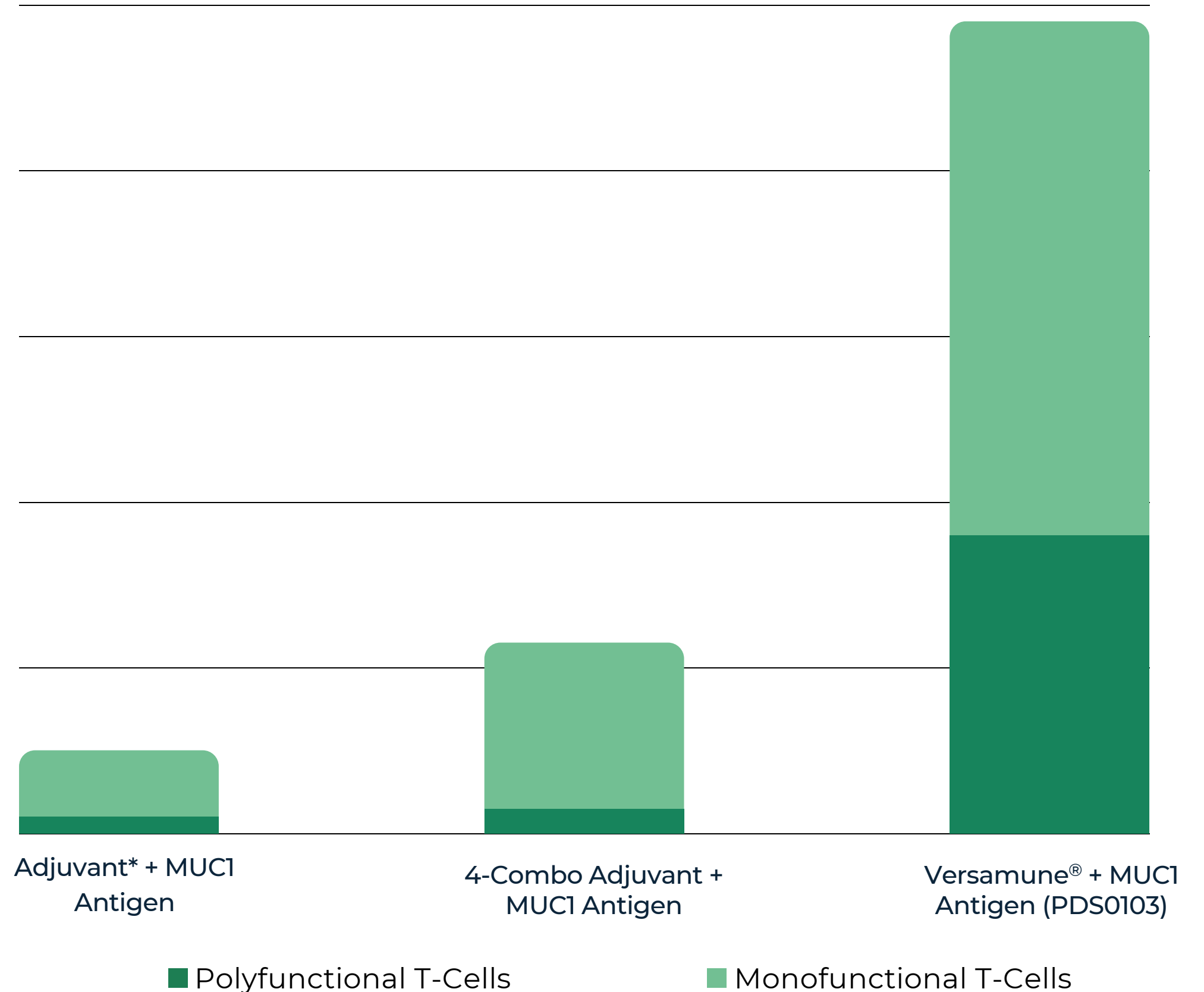
PDS0103: MUC1 Antigen

Greater quantity and quality of Versamune[®]-induced CD8+ killer T-cells may result in the ability to treat breast, ovarian, lung, and colon cancers

\$100B MUC1 Total Market Opportunity*

Induced a >10-fold number of polyfunctional (highly potent) MUC1 specific CD8+ T-cells

of Antigen-Recognizing CD8+ T- Cells
IFN-γSpot Forming Cells/1X10⁶Spleen Cells



*References: Surveillance Research Program, National Cancer Institute SEER, Cancer Institute SEER, Assumes \$150K for annual course of therapy; in line with current immunotherapy treatment, Assessments have not been adjusted to reflect MUC1-expression, which is currently unknown by tumor type

Adjuvant = cytokine GMCSF
J. Immunology, 2019 (202),1215; Studies in TC-1 tumor model with other immunotherapies reported in: Vaccine 2009, January 14, 27 (3): 431; Science Translational Medicine 2016, 13 April, Vol 8 Issue 334; Vaccine 2009, September 25, 27 (42):5906.

Projected Milestones Through 1Q 2023*

	1H21	2H21	1Q22	2Q22	3Q22	4Q22	1Q23
PDS0101	Interim data from HPV-associated cancer trial ASCO - (NCI)	✓					
	Preliminary data from VERSATILE-002 (KEYTRUDA® combo) (go, no go)		✓				
	Achieved enrollment objective of HPV-associated cancer trial CPI refractory arm (NCI)			✓			
	Anticipated updated efficacy data from NCI trial				▬		
	Anticipated updated efficacy data from VERSATILE-002 (KEYTRUDA® combo)					▬	
	Anticipated preliminary data from IMMUNOCERV (MD Anderson)					▬	
	Anticipate preliminary efficacy data from Mayo Clinic IIT						▬
PDS0103						▬	
Estimated IND approval / Planned initiation of Phase 1/2 clinical trial in MUC1-related cancers						▬	

*Based on current enrollment and forecast modeling as of March 2022. Subject to change.







A 3D scientific illustration of a cell surface. The cell membrane is shown with various receptors and proteins. Several Y-shaped antibody molecules are bound to the surface, interacting with specific receptors. The background is a dark teal color with a subtle pattern of smaller, similar structures.

Infectimune™

Infectious Disease Platform

PDS Biotech's Infectimune™ Pipeline

Developed in partnership with leaders in infectious disease

Candidate	Indication	PC	P1	P2	P3	R	Partner(s)
PDS0202 (influenza)	Universal prevention of influenza						
PDS0203 (SARS-CoV-2)	Prevention of COVID-19						
PDS0201 (M-tuberculosis)	Prevention of tuberculosis						

PDS Biotech Funded



Partner Co-Funded

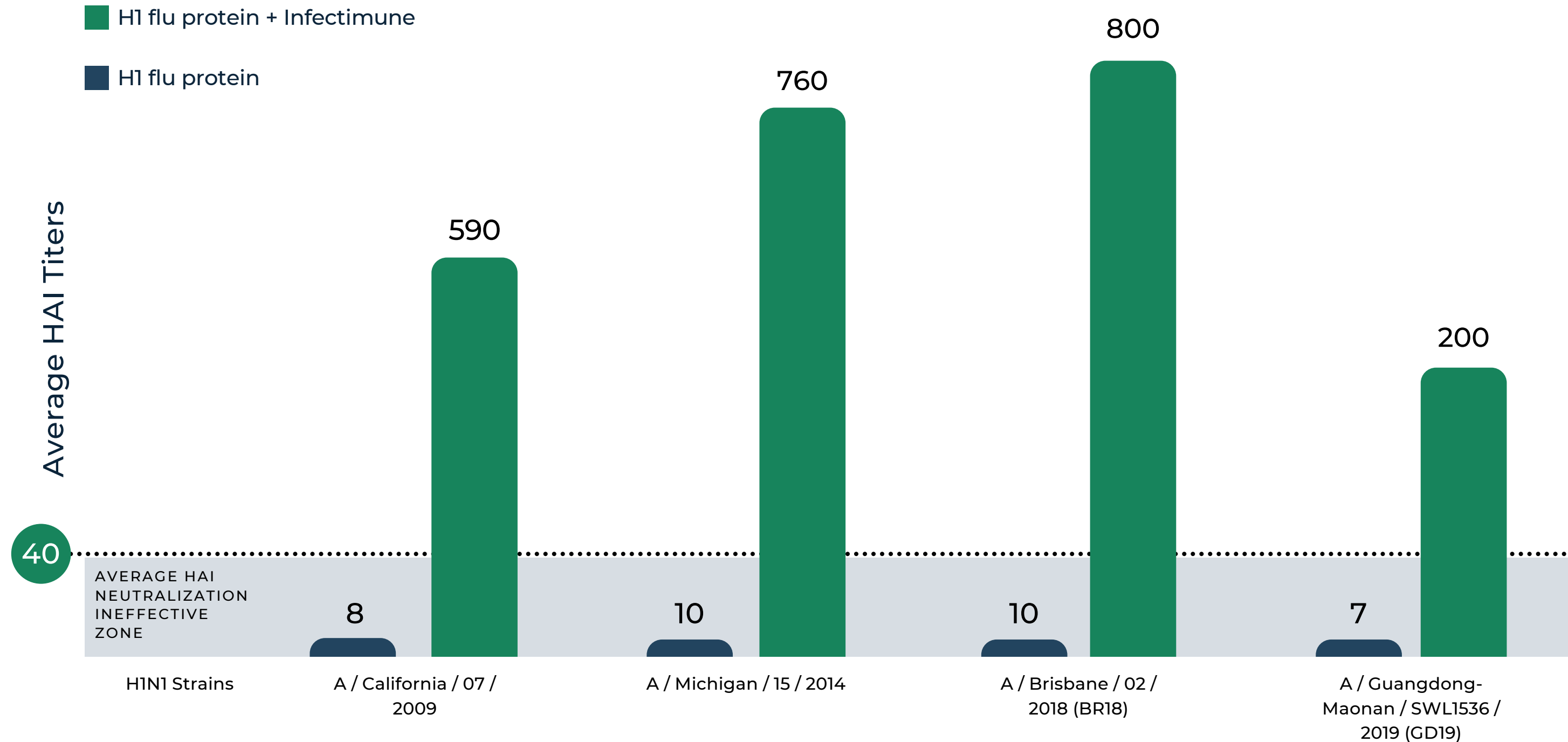


*Consortium of PDS Biotech, Farmacore Biotechnology. Funding provided by The Ministry of Science, Technology and Innovation of Brazil ("MCTI").
Reference: Data on file.

PDS0202: Universal Prevention of Influenza

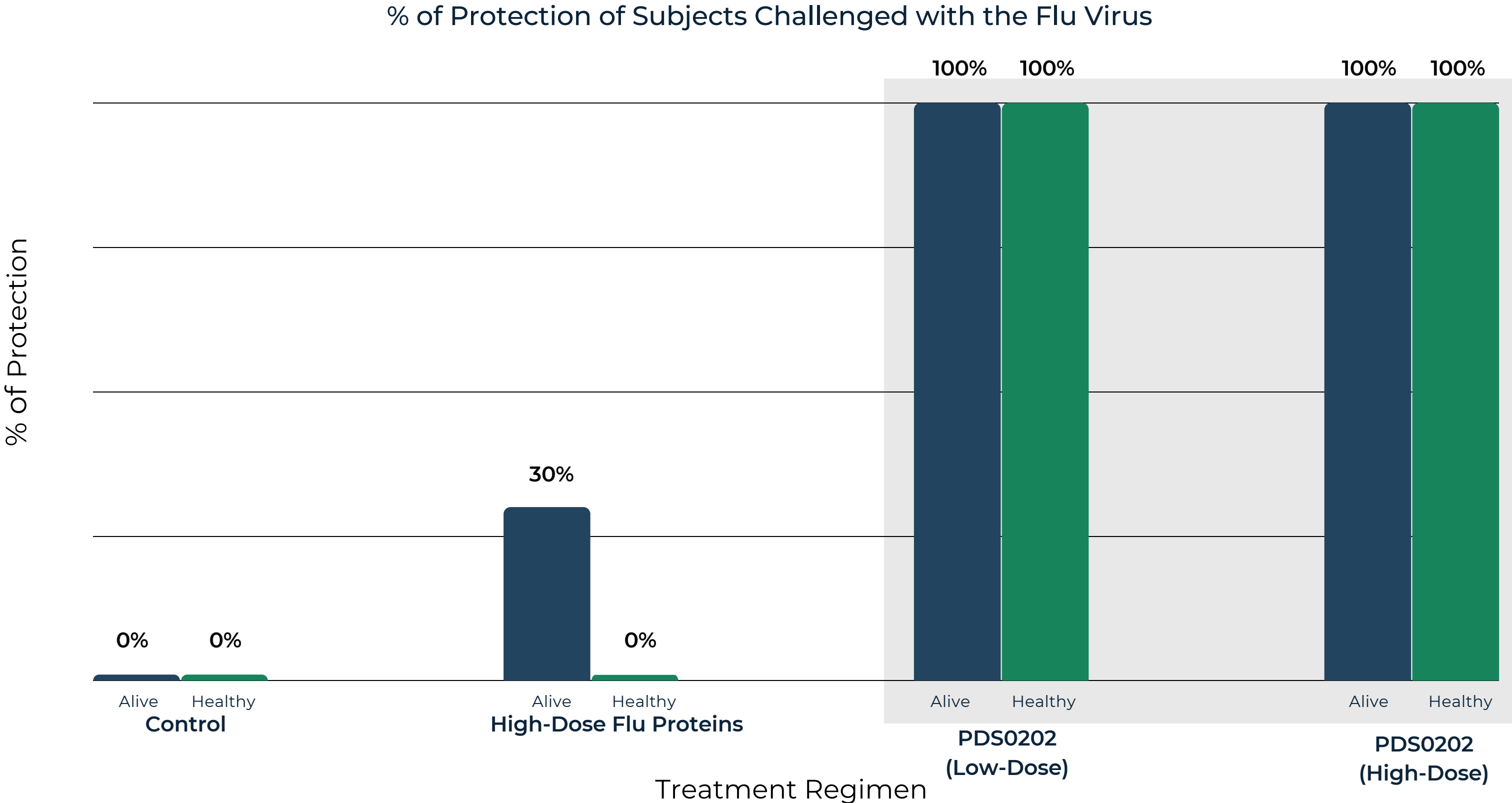
Provided Effective Neutralization Against Multiple Strains of Flu Viruses in Preclinical Study

Average HAI Neutralization Titer Levels Induced by PDS0202 for Various Flu Strains vs Required Levels



PDS0202: Universal Prevention of Influenza

Provided Protection in Preclinical Study in Keeping Subjects Alive and Healthy Against Challenge with Flu Virus



Infectimune™ Pipeline Highlights

Universal Flu

- Announced agreement for license with University of Georgia for universal flu antigens
- Top-line preclinical data released
- Preclinical data to be submitted to peer reviewed journal for publication and future conferences

COVID

- Agreement with Farmacore extended through May 2022
- Scale up and manufacturing currently in process

PDS Biotech Management

Historical success in the development and commercialization of leading pharmaceutical products

<p>Frank Bedu-Addo, PHD Chief Executive Officer</p>	<ul style="list-style-type: none">• Senior executive experience with management of strategy and execution at both large pharma and biotechs• Notable drug development:<ul style="list-style-type: none">Abelcet® (Liposome Company/ Elan)PEG-Intron® (Schering-Plough/ Merck)	
<p>Matthew Hill Chief Financial Officer</p>	<ul style="list-style-type: none">• 20 years of financial and operational leadership roles for life sciences companies• Former Chief Financial Officer of several publicly traded companies	
<p>Lauren V. Wood, MD Chief Medical Officer</p>	<ul style="list-style-type: none">• 30 years of translational clinical research experience• Former Director of Clinical Research at National Cancer Institute Center for Cancer Research (Cancer Vaccine Branch)	
<p>Gregory Conn, PHD Chief Scientific Officer</p>	<ul style="list-style-type: none">• Co-founder• 35 years of drug development experience• In-depth experience with biotech drug discovery, product development and manufacturing	

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