



# CORPORATE OVERVIEW

## NOVEMBER 2020

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Frank Bedu-Addo Ph.D. President & CEO



**PDS Biotechnology**

Nasdaq: PDSB

*A new generation of multi-functional  
cancer immunotherapies*



## 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 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.

# PDS Biotech is a clinical stage biotechnology company developing a pipeline of immunotherapies based on the proprietary Versamune<sup>®</sup> platform

## CORPORATE OVERVIEW

- Biopharma developing novel treatments for cancer and T-cell activating infectious disease vaccines
- **Three** phase 2 oncology clinical trials in progress
- Publicly listed on **NASDAQ: PDSB**
- ~15 employees with headquarters in Florham Park and Princeton, NJ
- Debt free with approximately **\$33.5M in cash** as of 9/30/20

## VERSAMUNE<sup>®</sup> PLATFORM

- Versatile, potent T-cell-activating platform demonstrating efficacy without dose limiting toxicity in clinical trials
- Clinically supported induction of active antigen-specific killer and helper T-cells *in vivo*
- Long term potential to work with a wide array of oncogenes and viral antigens
- Multiple composition and application patents valid through mid-2030s

# PDS Biotech's robust Versamune®-based pipeline being developed in partnership with the leaders in immuno-oncology

PRODUCT	INDICATION	COMBINATION	PC	P1	P2	P3	R	PARTNER(S)
Oncology								
<u>PDS0101 (HPV16)</u>	First line treatment of recurrent / metastatic head and neck cancer	KEYTRUDA®	PDS Biotech Funded					MERCK
<u>PDS0101 (HPV16)</u>	Advanced HPV-associated malignancies	M7824 NHS-IL12	Partner Co-Funded					NIH NATIONAL CANCER INSTITUTE
<u>PDS0101 (HPV16)</u>	Stage IIb-IVa Cervical cancer	Chemo-radiation	Partner Co-Funded					THE UNIVERSITY OF TEXAS MD Anderson Cancer Center
<u>PDS0102 (TARP)</u>	Prostate and Breast Cancer	Immunotherapy	PDS Biotech Funded					NIH NATIONAL CANCER INSTITUTE
<u>PDS0103 (MUC-1)</u>	Breast, Colorectal, Ovarian and NSCLC Cancer	Immunotherapy	PDS Biotech Funded					NIH NATIONAL CANCER INSTITUTE
<u>PDS0104 (TRP2)</u>	Melanoma	Immunotherapy	PDS Biotech Funded					
Infectious Disease								
<u>PDS0201 (M-tuberculosis)</u>	Prevention of tuberculosis		PDS Biotech Funded					Farma core
<u>PDS0202 (influenza)</u>	Universal prevention of influenza		PDS Biotech Funded					NIH National Institute of Allergy and Infectious Diseases
<u>PDS0203 (SARS-CoV-2)</u>	Prevention of COVID-19		PDS Biotech Funded					Farma core

PDS Biotech Funded 
 Partner Co-Funded

# PDS Biotech executive team has demonstrated success in the development and commercialization of leading pharmaceutical products

## ■ Frank Bedu-Addo, PhD Chief Executive Officer

- Senior executive experience with management of strategy and execution at both large pharma and biotechs
- Notable drug development:  
Abelcet<sup>®</sup> (Liposome Company/ Elan)  
PEG-Intron<sup>®</sup> (Schering-Plough/ Merck)



## ■ Lauren V. Wood, MD Chief Medical Officer

- >30 years of translational clinical research experience
- Former Director of Clinical Research at National Cancer Institute Center for Cancer Research (Cancer Vaccine Branch)



## ■ Gregory Conn, PhD Chief Scientific Officer

- Co-founder
- >35 years of drug development experience
- In-depth experience with biotech drug discovery, product development and manufacturing



## ■ Michael King Chief Financial Officer (Interim)

- Senior executive experience with over 20 years of experience in pharma and drug development
- In-depth experience with M&A transactions, capital markets, and investor relations

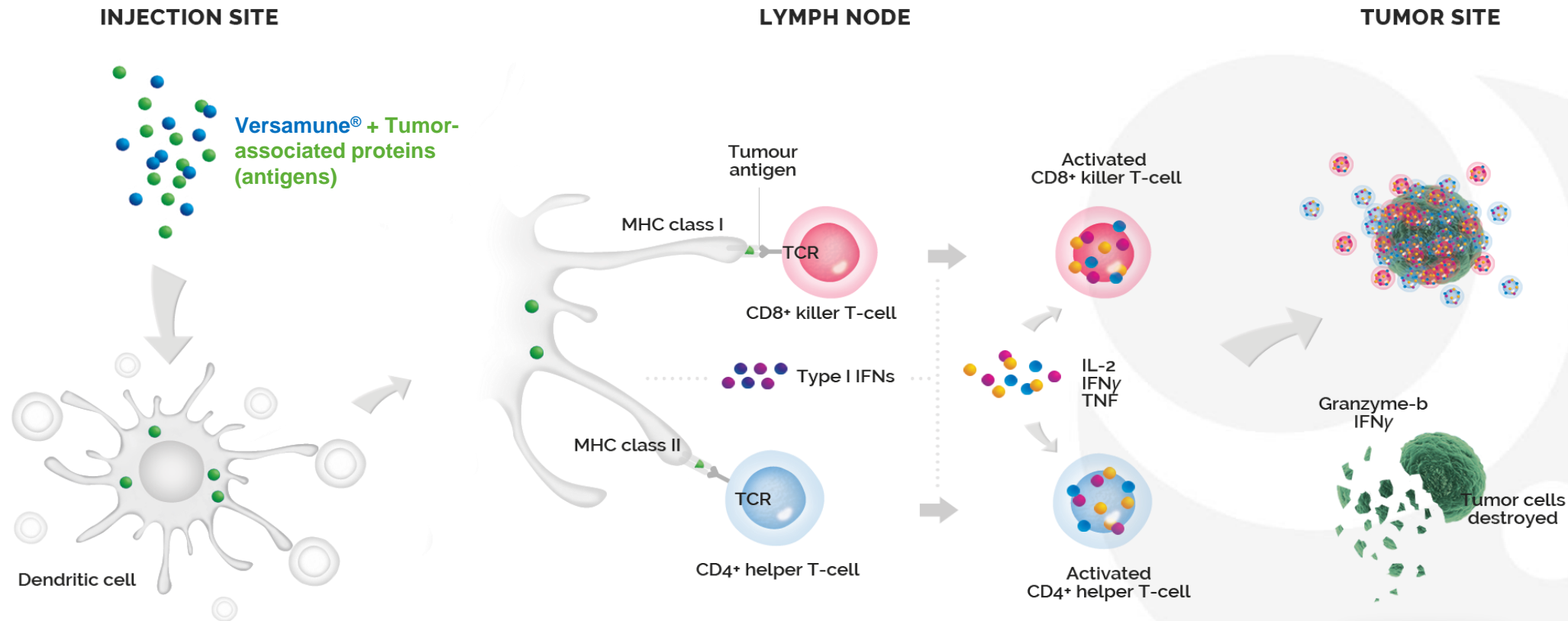




A 3D molecular model of a protein complex. The central structure is a large, grey, multi-subunit protein with a complex, irregular surface. Several smaller, green, multi-subunit protein structures are scattered around the main grey structure, some appearing to be bound to it. The background is a dark blue gradient.

# Introduction to the Versamune<sup>®</sup> Platform

# Versamune® is designed to induce a robust and targeted anti-tumor response *in vivo* when administered with a tumor-associated antigen



Promotes uptake of vaccine or immunotherapy and entry into lymph nodes

Promotes antigen processing and presentation to T-cells via MHC I and II pathways

Activates Type I Interferon pathway, enabling a powerful anti-tumor killer CD8+ T-cell response

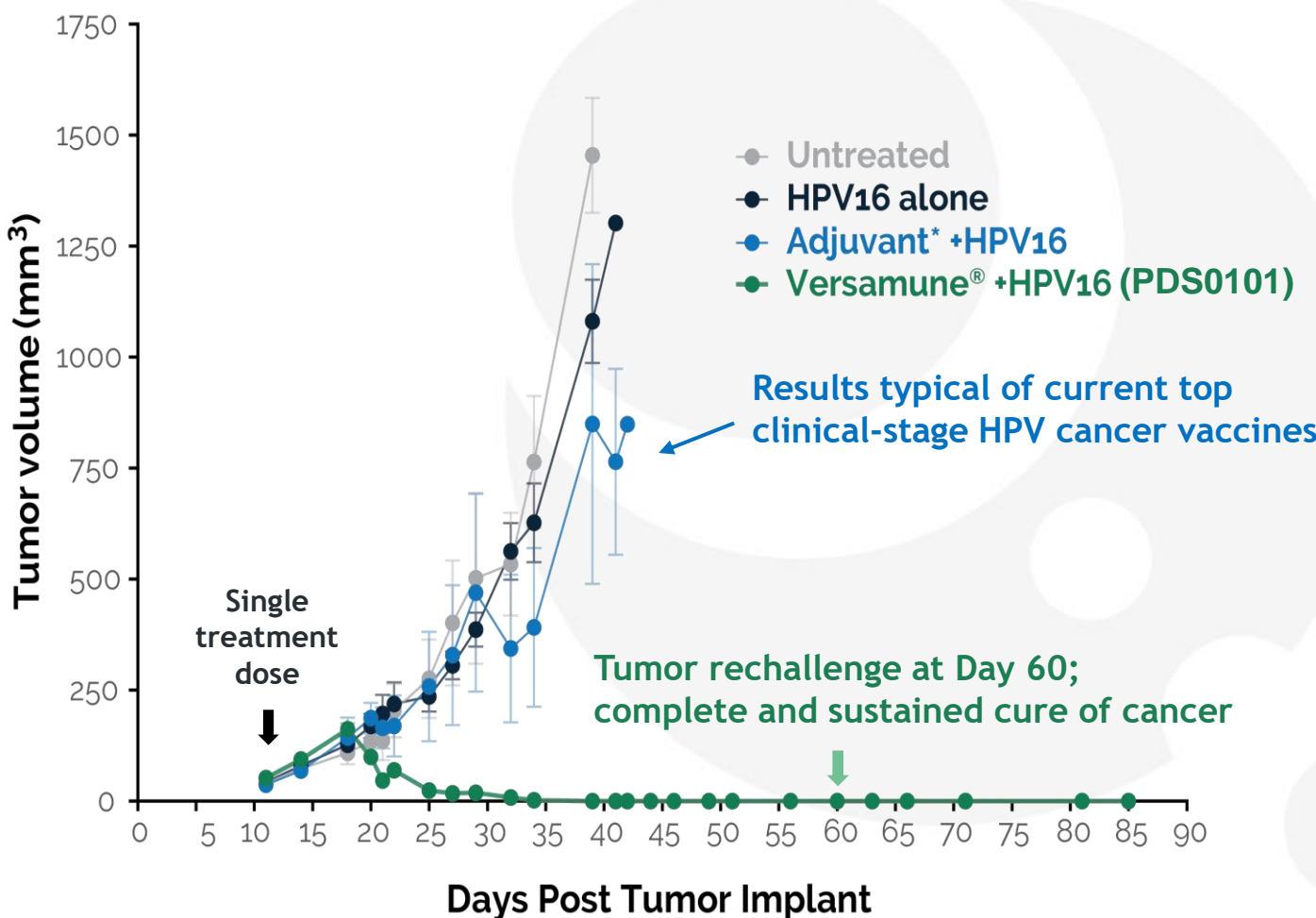
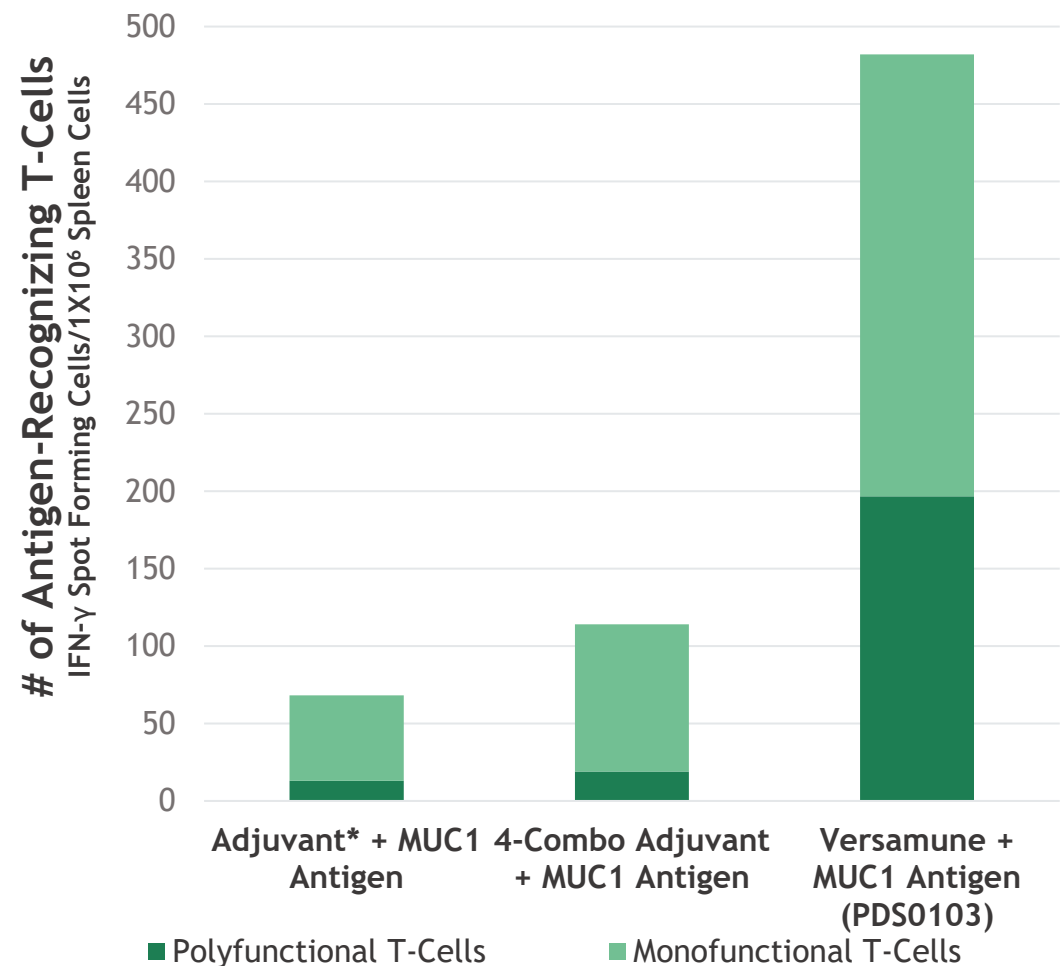
# Versamune® possesses the key characteristics of a safe and effective immunotherapeutic treatment

	Versamune®-based Immunotherapies	Checkpoint Inhibitors	Traditional Cancer Vaccines
Induction of high levels of active CD8+ (killer) T-cells	✓		
Induction of high levels of CD4+ (helper) T-cells	✓		✓
Ability to overcome tumor immune suppression	✓	✓	
Induction of long-term memory CD8+ T-cells	✓		
Low systemic toxicity risk	✓		✓



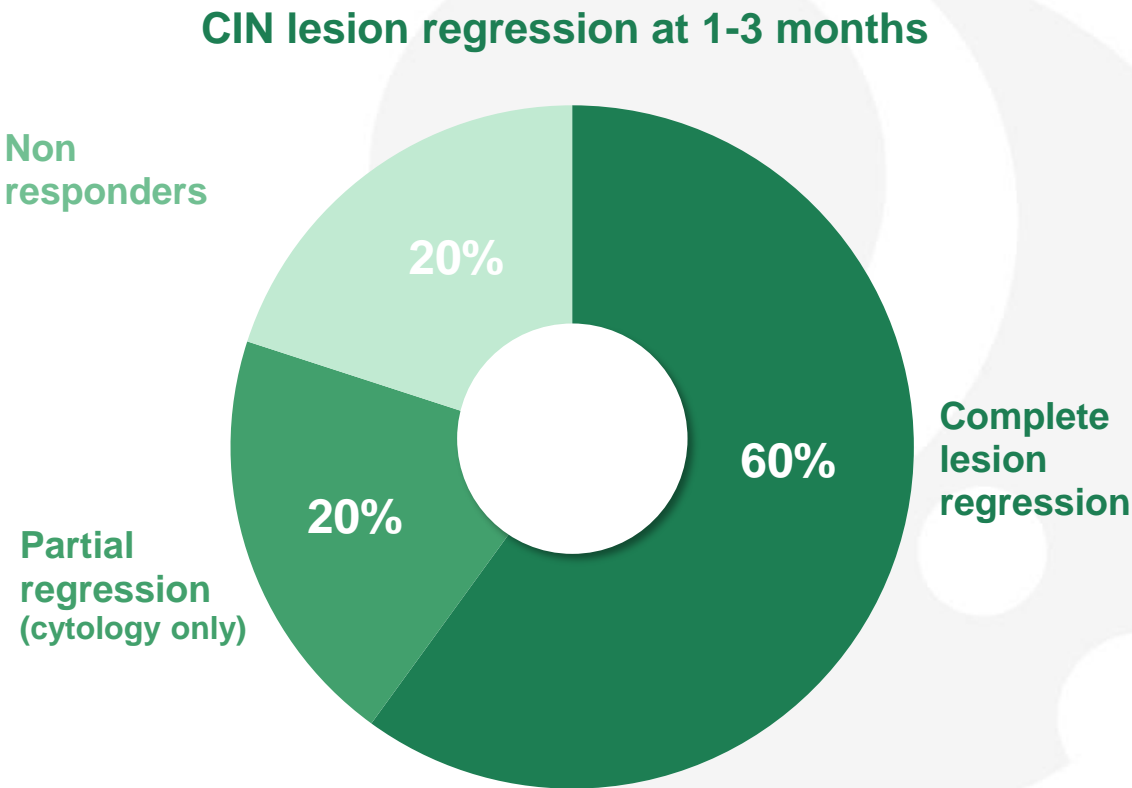
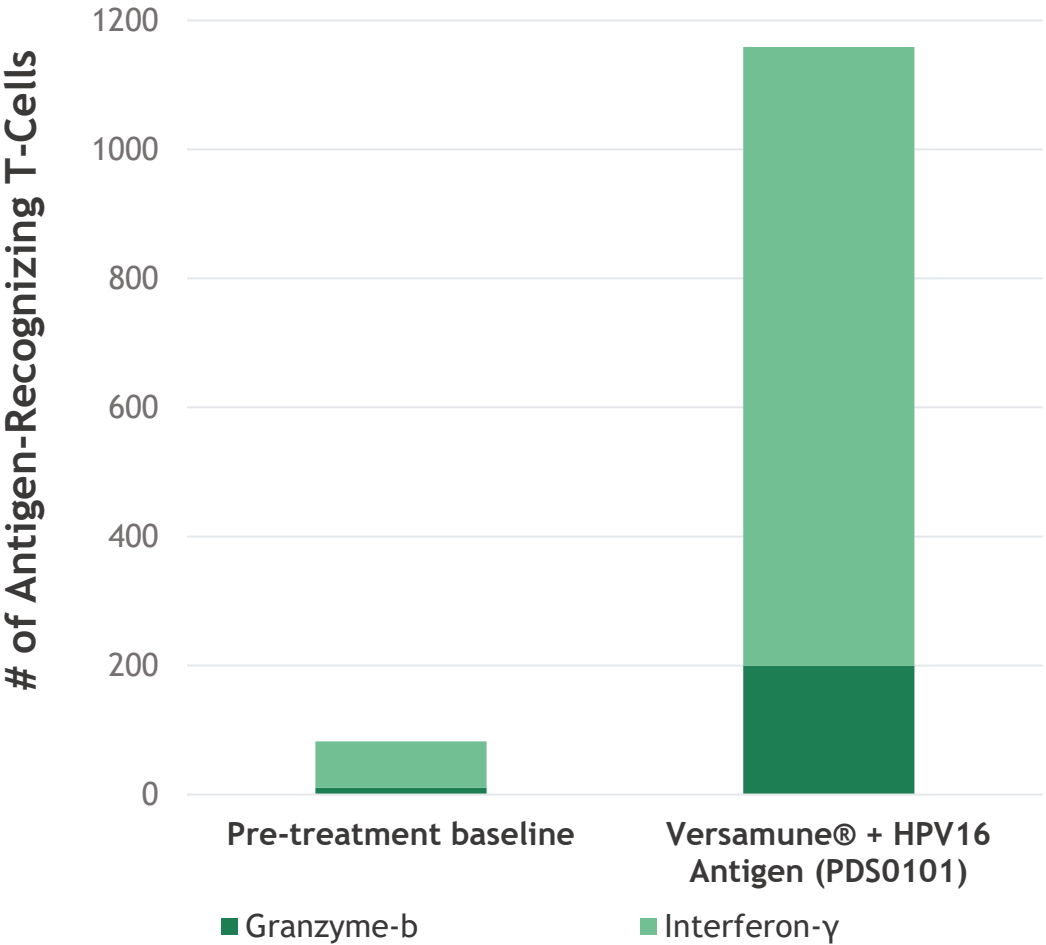
# Greater quantity and quality of Versamune<sup>®</sup>-induced killer T-cells may result in unique ability to eradicate HPV-positive tumors after a single dose

*Produces > 10-fold number of highly potent (polyfunctional) killer T-cells vs. other T-cell technologies*



# Preclinical T-cell induction and regression efficacy replicated in Phase 1 study, demonstrating powerful *in-vivo* CD8+ T-cell response in humans

Overcomes key limitation of immuno-oncology: > 15-fold increase in IFN- $\gamma$  inducing T-cells and > 20-fold increase in circulating dual IFN- $\gamma$  and Granzyme-b inducing killer T-cells vs. pre-treatment at day 14\*



Most patients infected with multiple strains of HPV

## Versamune® has demonstrated immunological compatibility with a wide array of tumor and pathogenic antigens

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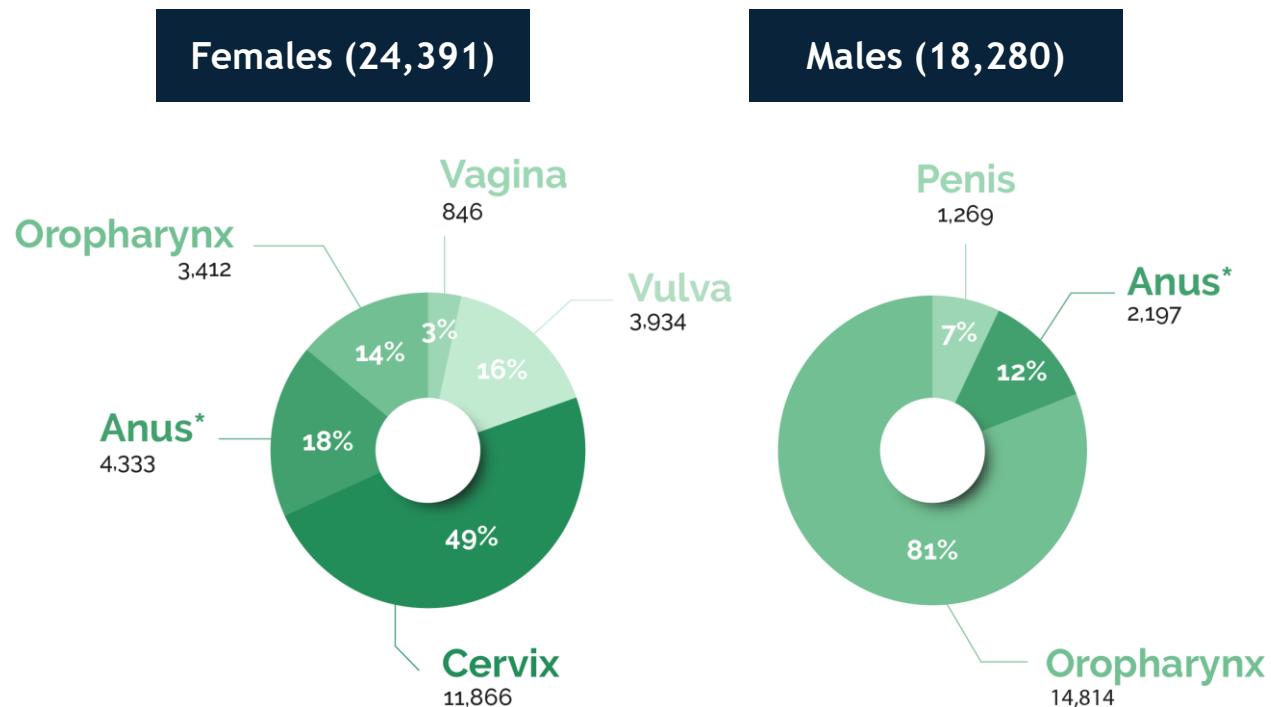
- Today, **4 tumor antigens** are being utilized with the Versamune® platform, more than **75 tumor antigens** have been identified
- We are currently progressing two Versamune®-based infectious disease vaccines, one for SARS-COVID-19, and one for universal influenza
- Versamune®'s unique flexibility means it may work well with a wide range of identified tumor and pathogenic antigens
- Long term potential to continuously expand development of Versamune®-based products through partnerships and licensing



# PDS0101 Clinical Development

# PDS0101 is designed to treat cancers caused by human papillomavirus (HPV)

## US annual HPV-associated cancer incidence<sup>1</sup>



- Approximately **43,000 patients** are diagnosed with HPV-associated cancers annually in the US
- **Incidence rate is growing** despite increased use of HPV preventative vaccines
- **Significant unmet medical need** across the spectrum of HPV-associated cancer
- Existing immunotherapies cost **\$120,000+ annually** per patient<sup>2</sup>



# Value creation strategy: Focus on combination studies for rapid proof-of-concept and risk mitigation

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## ***PDS0101 has demonstrated strong potential for efficacy as a monotherapy***

PDS0101 is being investigated in two Phase 2 trials in combination therapies to enhance the clinical benefit of treatments that have been FDA-approved for the specific indications, and demonstrated to be safe, well tolerated and effective

### **Combinations of PDS0101 with FDA-approved standard of care**

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- ***First line treatment of recurrent/metastatic HPV-positive head and neck cancer***
  - Combination with Keytruda®
- ***Treatment of advanced localized cervical cancer***
  - Combination with chemoradiotherapy

### **Novel combinations of PDS0101 with promising immunotherapeutic agents**

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- ***Treatment of advanced HPV-associated cancers (anal, cervical, vaginal, head and neck etc.)***
  - Triple combination with Bintrafusp-alpha (bi-functional checkpoint inhibitor - M7824) and NHS-IL12 (antibody conjugated immuno-cytokine)

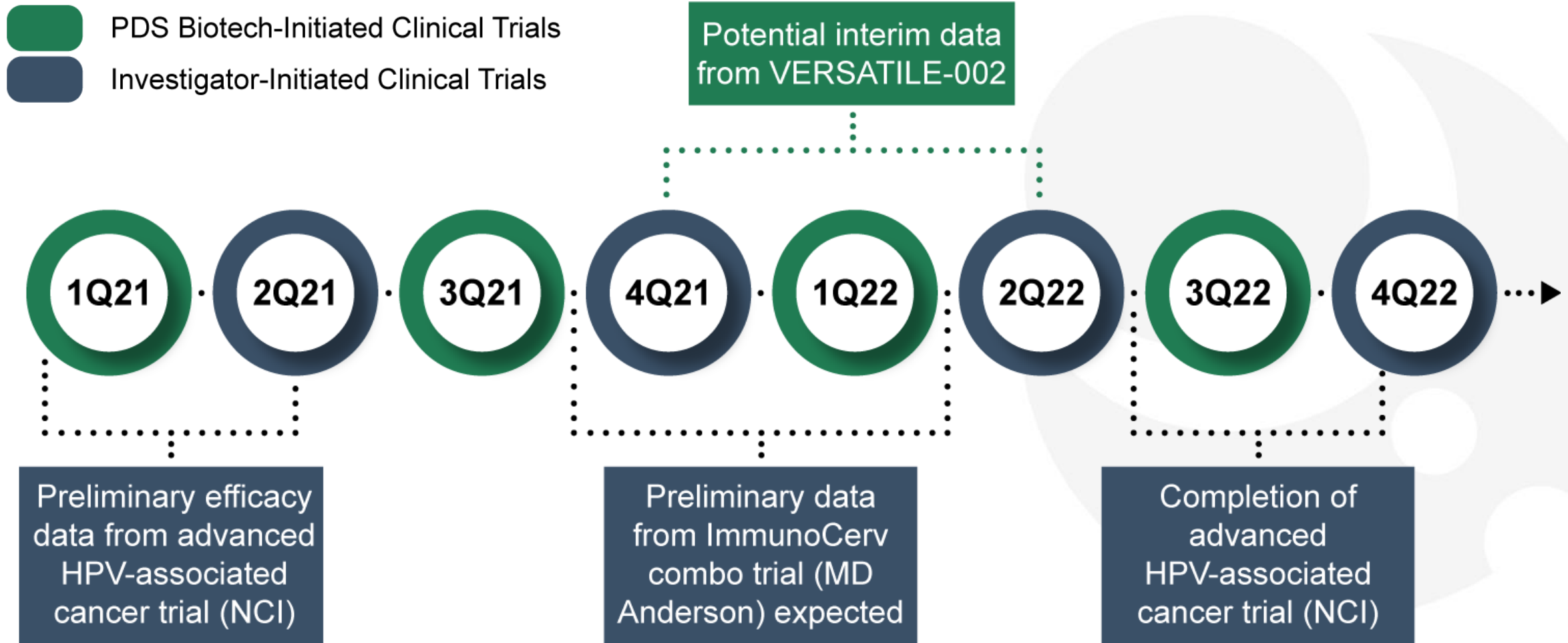
# Phase 2 studies of PDS0101 in combination therapy will evaluate efficacy and safety in a range of advanced HPV cancers

Partner	Phase 2 Open Label Study (Safety and Efficacy)	Important Considerations	Initiation
	<ul style="list-style-type: none"> <li>• Recurrent/metastatic HPV16-associated head &amp; neck cancer – First line</li> <li>• Combination with Merck’s Keytruda®</li> <li>• 96 subjects</li> </ul>	<ul style="list-style-type: none"> <li>• Objective is to evaluate if combination demonstrates improvement over standard of care Keytruda® alone</li> </ul>	<b>November 2020</b>
	<ul style="list-style-type: none"> <li>• Advanced, localized cervical cancer– all HPV types (Stage II-IVa)</li> <li>• Combination with chemo-radiotherapy (CRT)</li> <li>• 35 subjects</li> </ul>	<ul style="list-style-type: none"> <li>• Objective is to evaluate if combination demonstrates improvement over standard of care CRT alone</li> </ul>	<b>October 2020</b>
	<ul style="list-style-type: none"> <li>• Advanced HPV-associated malignancies – all HPV types</li> <li>• Combination with EMD Serono’s Bintrafusp-alfa (M7824) + NHS-IL12</li> <li>• 40 subjects</li> </ul>	<ul style="list-style-type: none"> <li>• NCI-published preclinical data shows potent anti-tumor synergy and CD8 T-cell induction with PDS0101*</li> <li>• All three agents have demonstrated potential efficacy as monotherapies in early trials</li> </ul>	<b>June 2020</b>



Looking Forward

# Financial position to support PDS0101 projected milestones through mid-2022\*



# Well positioned for near-term value appreciation

## Key Advantages and Differentiators

- ***Enhanced anti-cancer efficacy:*** Early clinical data and preclinical data suggest potentially superior efficacy, safety and versatility of the platform
- ***Potential for near-term value appreciation:*** PDS0101 preliminary data Q1-Q2 2021
- ***Validation of approach:*** All three on-going phase 2 clinical trials supported and partnered with leading and top-tier institutions in the field of cancer and immuno-oncology
- ***Commercialization path:*** Clinical studies evaluating the potential to safely enhance the clinical efficacy of FDA-approved anti-cancer products presents a potentially rapid path to commercialization
- ***Rapid adoption strategy:*** Evaluation of PDS0101 in combination with standard of care in multiple HPV-associated cancers





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