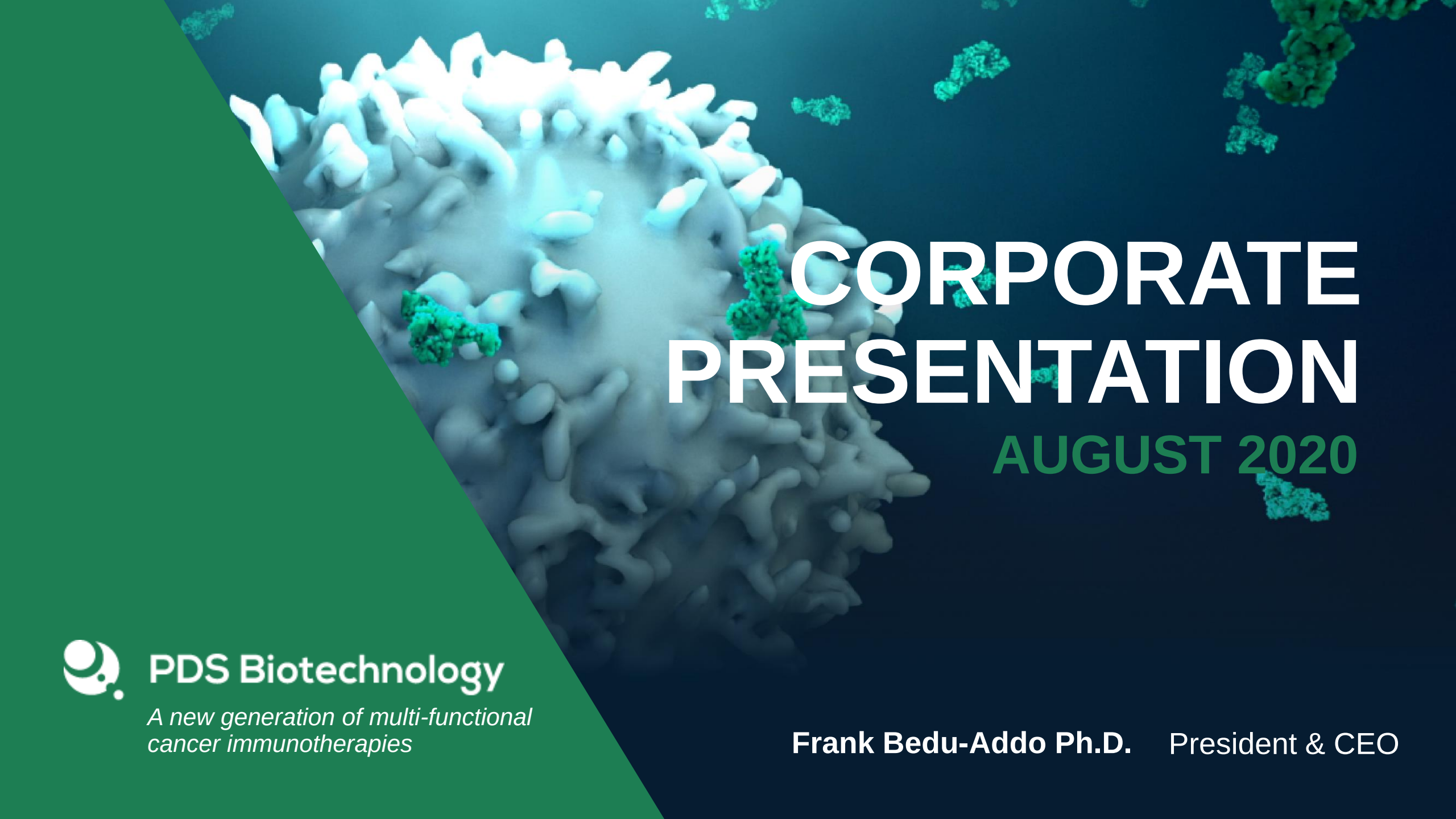


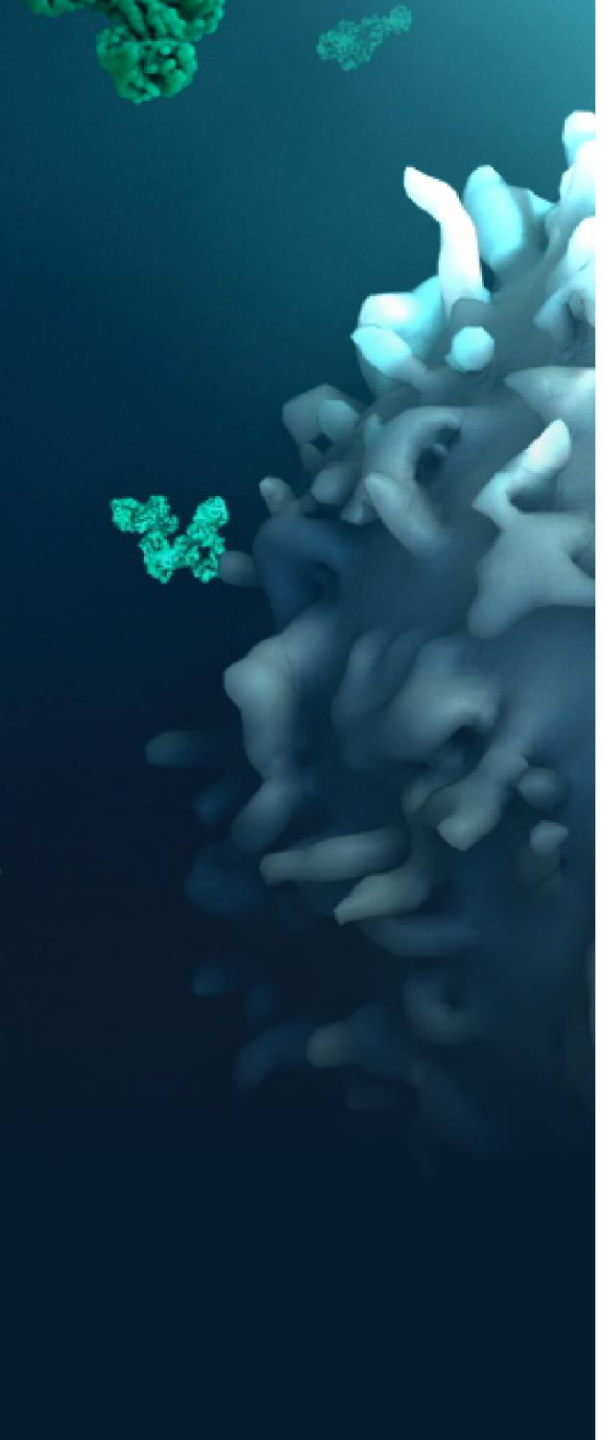
CORPORATE PRESENTATION

AUGUST 2020

PDS Biotechnology

A new generation of multi-functional cancer immunotherapies

Frank Bedu-Addo Ph.D. President & CEO



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 Biotechnology leadership 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® (Liposome Company/ Elan)
  PEG-Intron® (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

PDS Biotech is well-poised to transform vaccines and cancer treatment by delivering promising immunotherapies

1. Powerful immunotherapy platform that activates therapeutic and preventive immunological pathways
2. Demonstrated potential for strong clinical efficacy and durability of response with minimal toxicity
3. Diversified pipeline focused on oncology and infectious disease
4. Clinical studies in areas of high unmet medical need supported by leaders in the field

PDS Biotech is a clinical stage biotechnology company developing a pipeline of immunotherapies based on the proprietary Versamune® platform

CORPORATE OVERVIEW

- Publicly listed on NASDAQ: PDSB
- ~15 employees with headquarters in Florham Park and Princeton, NJ
- 15.4M shares outstanding* with approximately $21.0M in cash**

VERSAMUNE® PLATFORM

- Versatile and potent T-cell-activating platform
- Clinically supported induction of active antigen-specific killer and helper T-cells *in vivo*
- Promising clinical efficacy demonstrated in early trials of PDS0101 monotherapy with favorable safety profile and no dose limiting toxicities

PIPELINE

Oncology

- **PDS0101 (Phase 2)**: HPV-associated cancers
- **PDS0102**: Prostate, breast cancers
- **PDS0103**: Ovarian, breast, colorectal and lung cancers
- **PDS0104**: Melanoma

Infectious Disease Vaccines

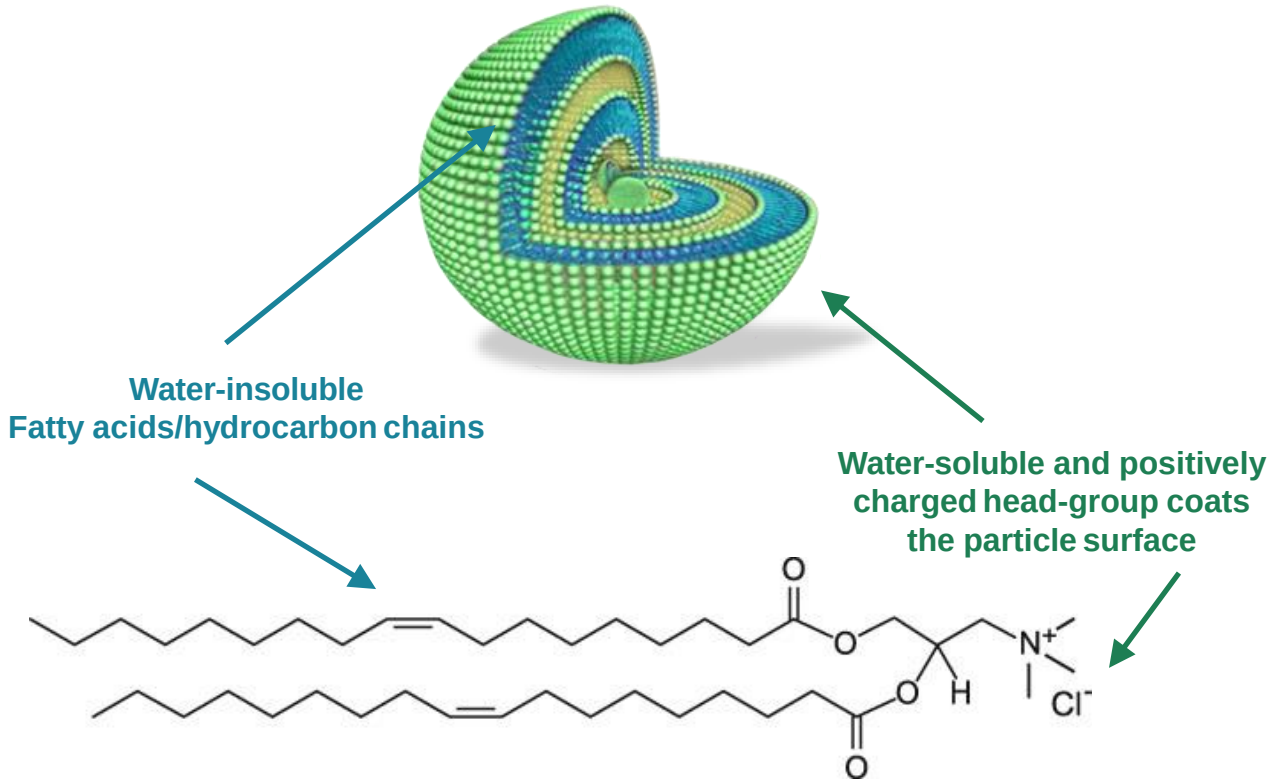
- **PDS0201**: Tuberculosis
- **PDS0202**: Universal influenza
- **PDS0203**: COVID-19
- **PDS0204**: COVID-19

* July 27, 2020

** March 31, 2020

Versamune® Platform

Versamune®: proprietary T-cell activating platform
Engineered to induce robust, targeted anti-tumor responses *in vivo*



R-enantiomer of 1,2-dioleoyl-trimethyl-ammonium-propane (R-DOTAP)

- Versamune® is based on proprietary, positively charged and immune activating lipids that form spherical nanoparticles in aqueous media
- The nanoparticles are sized to mimic viruses, which promotes excellent uptake by dendritic cells of the immune system
- Activates the important Type I interferon immunological signaling pathway
- Versamune® promotes the activation and maturation of dendritic cells, which then migrate to the lymph nodes

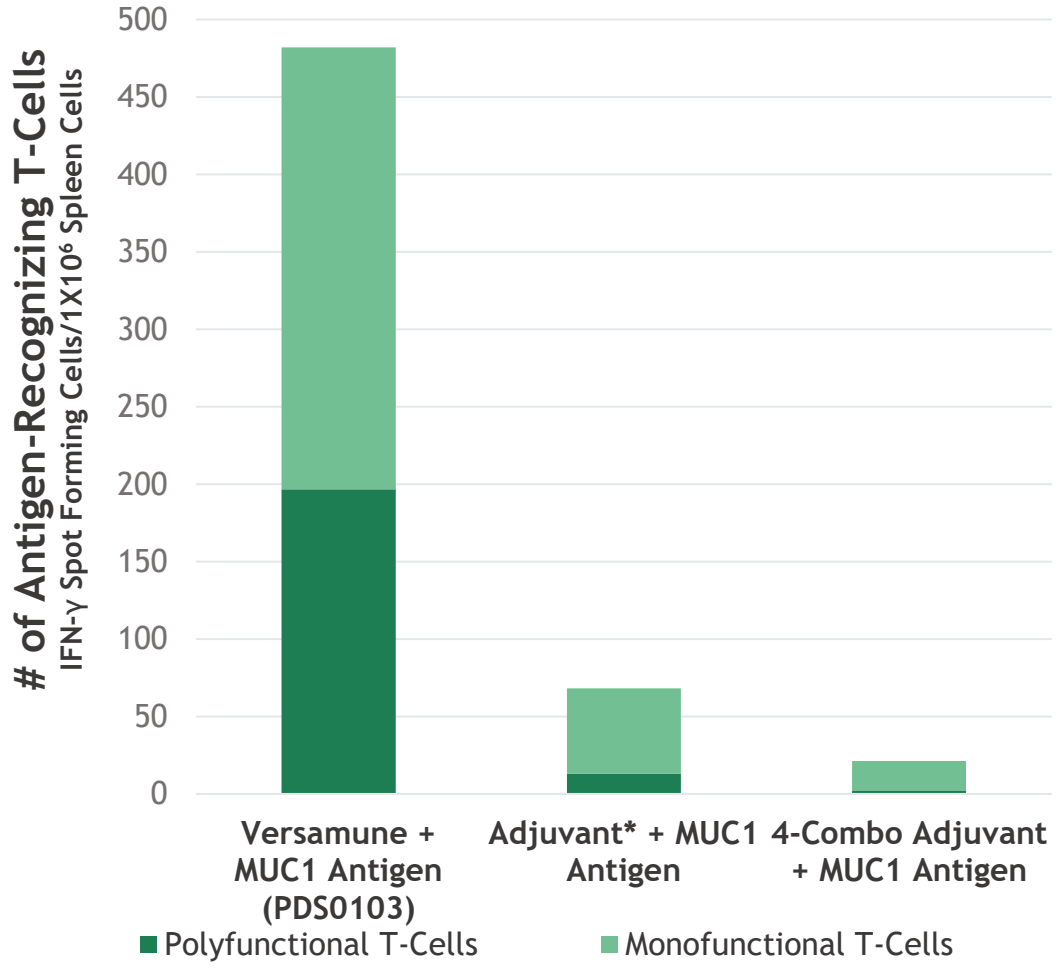
Versamune® has demonstrated potential to overcome well-established challenges of immunotherapy in oncology and infectious disease

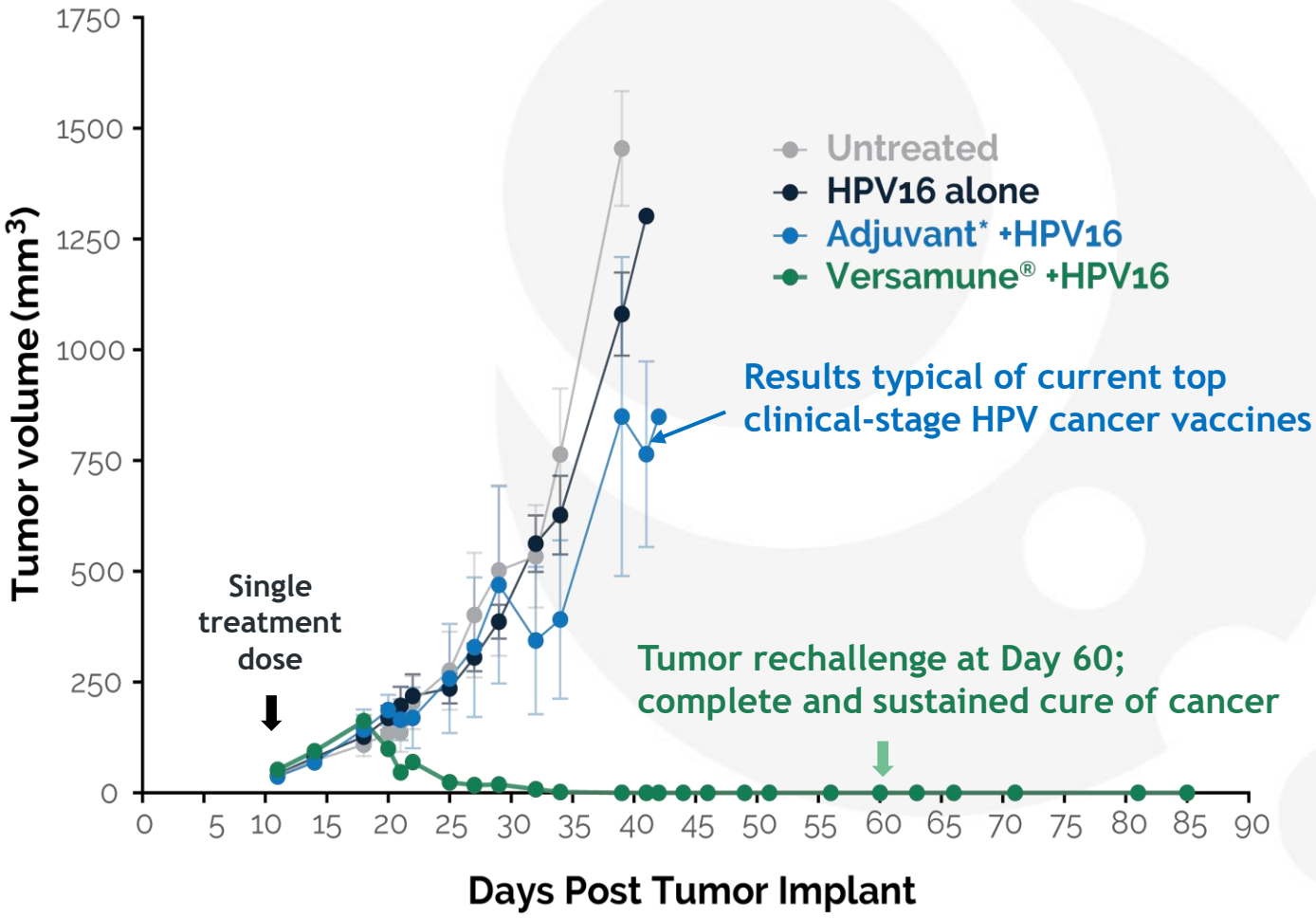
Challenges of Immunotherapy	How Versamune® May Overcome the Challenges
Inability to perform the necessary steps to induce a strong therapeutic killer T-cell response *in-vivo*	Versamune® design and novel immunological mechanisms of action promote a powerful disease-specific killer T-cell response
Mechanistic limitations have resulted in lack of therapeutic benefit in human studies	Mechanism of action associated with regression of disease in human studies (PDS0101 monotherapy)
Potential for systemic toxicities	Mechanism of action results in a lack of clinically relevant toxicities, even at the highest dose, in human studies

Reference: Gandhapudi SK, Ward M, Bush JPC, Bedu-Addo F, Conn G, Woodward JG. 2019. Antigen priming with enantiospecific cationic lipid nanoparticles induces potent antitumor CTL responses through novel induction of a Type I IFN response. J Immunol. 202 (12): 3524-3536.

Greater quantity and quality of Versamune®-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

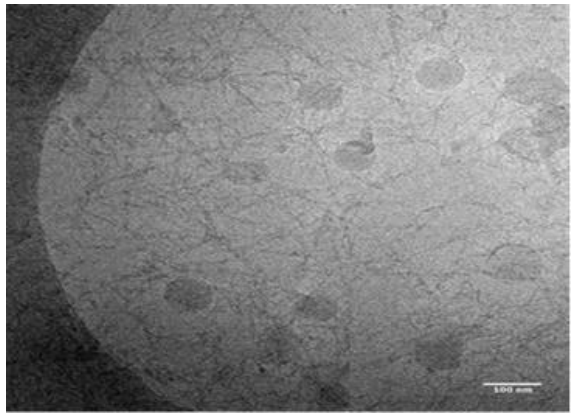


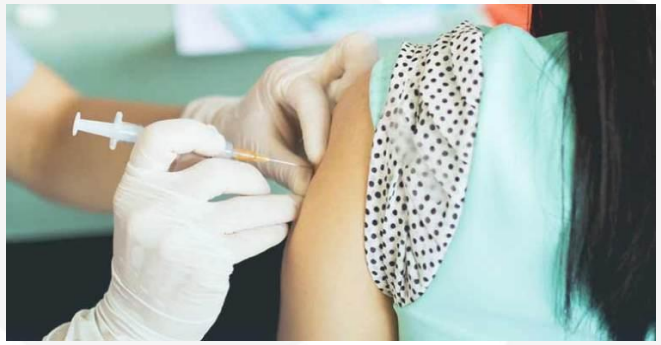


*Adjuvant = cytokine GMCSF

References: 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.

Combination of Versamune® and a proprietary antigen Engineered for simplicity and ease of administration





Vials of HPV16 mix (L) and Versamune® (R)

Versamune® formulation is mixed before injection*

Delivered via subcutaneous injection

*Electron microscopy picture


Oncology

Clinical strategy in advanced cancer: Focus on efficiency and risk mitigation to proof of concept

Versamune®-based immunotherapies are being developed as combination therapies to exploit the demonstrated synergies between Versamune® and other anti-cancer agents

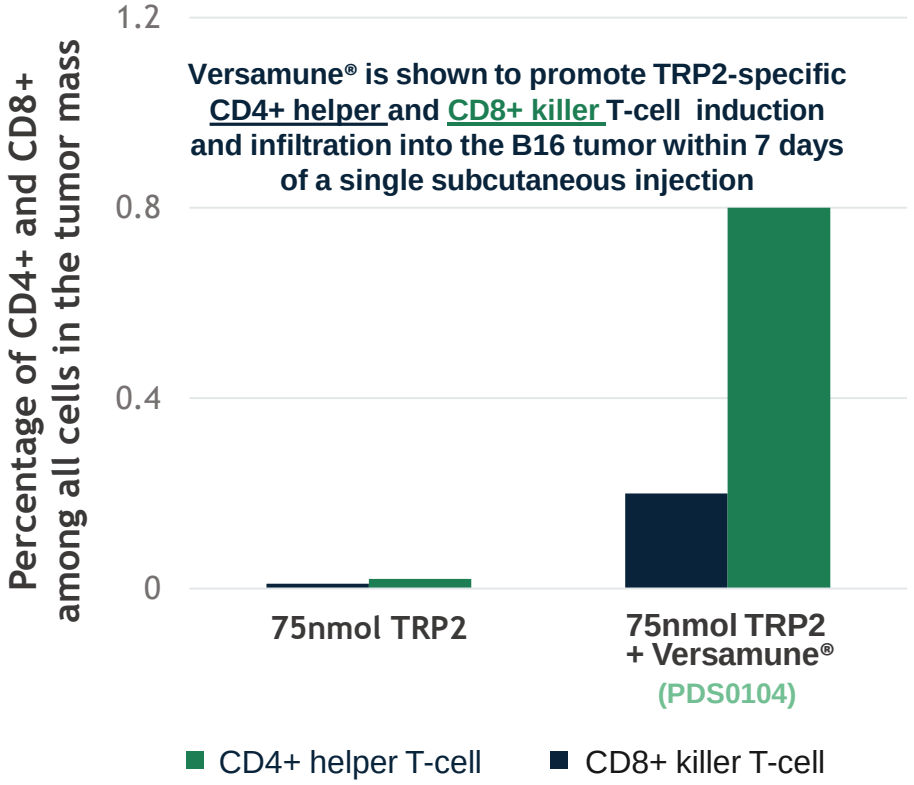
- Checkpoint inhibitors have shown confirmed clinical efficacy and have demonstrated clinical benefit in late stage cancer
  - Checkpoint inhibitors block a key immunological defense mechanism for cancer cells, and are reported to work primarily in patients whose immune systems are already generating tumor-attacking CD8+ killer T-cells pre-treatment
- Using various tumor-specific proteins (antigens), Versamune® has demonstrated the ability to generate large and superior numbers of CD8+ killer T-cells relative to other immunotherapies that effectively recognize and kill antigen-expressing cancer cells in pre-clinical and human clinical studies

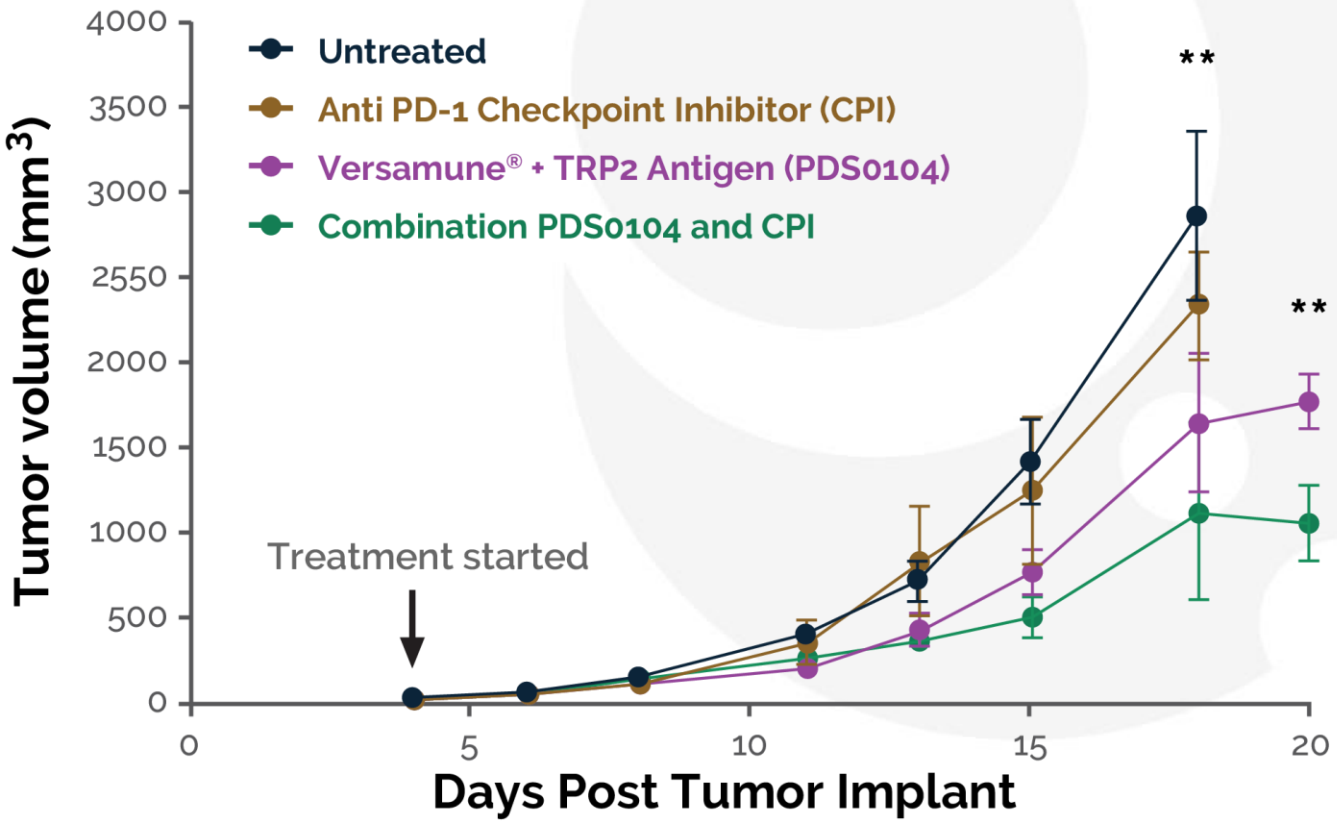
PDS Biotech is developing a new generation of advanced cancer treatments combining Versamune®-based immunotherapies with checkpoint inhibitors and other standard of care therapies

Versamune®-based immunotherapy + checkpoint inhibitors: Strong synergy leads to enhanced anti-tumor efficacy

Preclinical studies: Checkpoint inhibitor ineffective in treating B16 melanoma, a notoriously difficult model

PDS0104 promotes infiltration of active killer T-cells into tumors + Checkpoint inhibitor blocks tumor immune suppressive mechanism = Enhanced anti-tumor efficacy





References: Gandhapudi SK et al. 2019. Antigen priming with enantiospecific cationic lipid nanoparticles induces potent antitumor CTL responses through novel induction of a Type I IFN response. J Immunol. 202 (12): 3524-3536. Vasievich EA et al. 2012. Trp2 peptide vaccine adjuvanted with (R)-DOTAP inhibits tumor growth in an advanced melanoma model. Mol Pharmaceutics. 9(2): 261-268.

PDS Biotech's immuno-oncology pipeline combines the Versamune® platform with proprietary tumor antigens across several cancer types

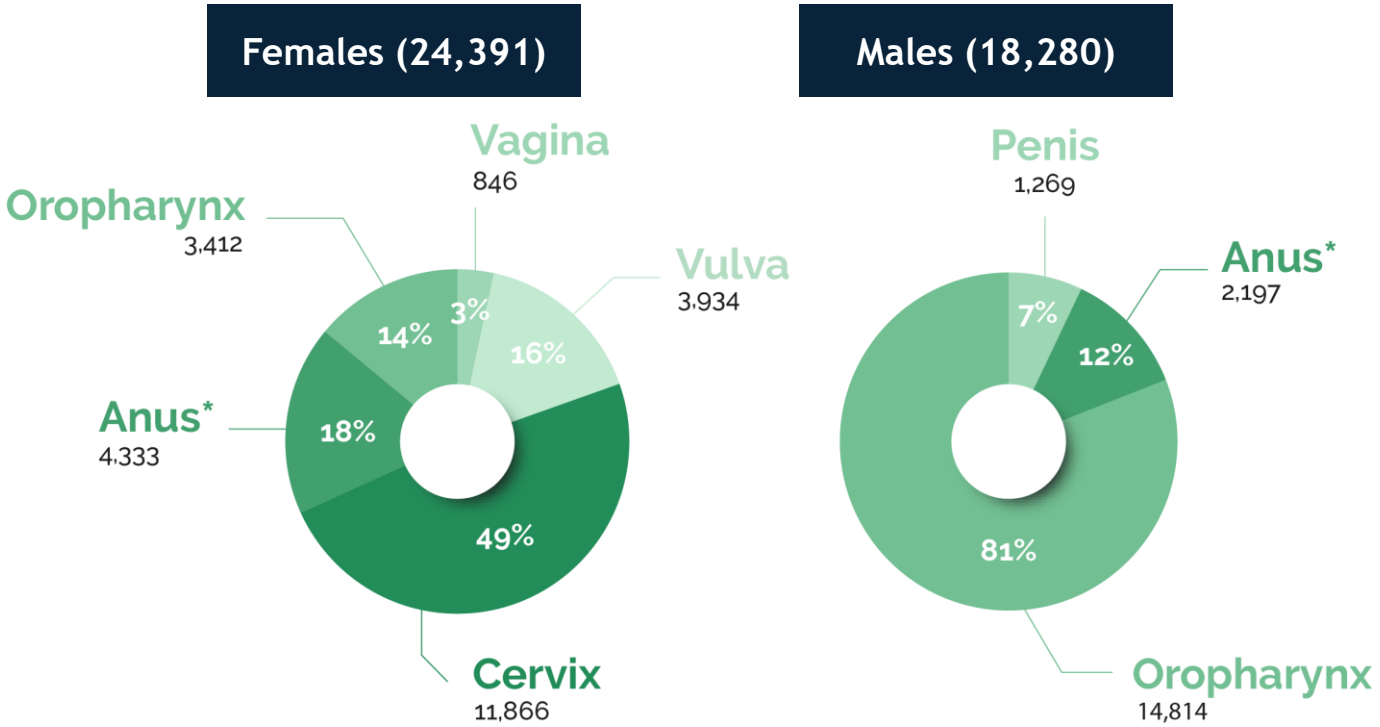
PRODUCT	INDICATION	COMBINATION	PC	P1	P2	P3	R	PARTNER(S)
Oncology								
PDS0101 (HPV16)	First line treatment of recurrent / metastatic head and neck cancer	KEYTRUDA®						MERCK
PDS0101 (HPV16)	Advanced HPV-associated malignancies	M7824 NHS-IL12						NIH NATIONAL CANCER INSTITUTE
PDS0101 (HPV16)	Stage IIb-IVa cervical cancer	Chemo-radiation						THE UNIVERSITY OF TEXAS MD Anderson Cancer Center
PDS0102 (TARP)	Prostate and breast cancer	Immunotherapy						NIH NATIONAL CANCER INSTITUTE
PDS0103 (MUC-1)	Breast, colorectal, ovarian and NSCLC cancer	Immunotherapy						NIH NATIONAL CANCER INSTITUTE
PDS0104 (TRP2)	Melanoma	Immunotherapy						

PDS Biotech Funded Partner Co-Funded

Reference: Data on file.

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

Approximately 43,000 patients are diagnosed with cancers where HPV is often found each year in US; approximately 35,000 cases are caused directly by HPV



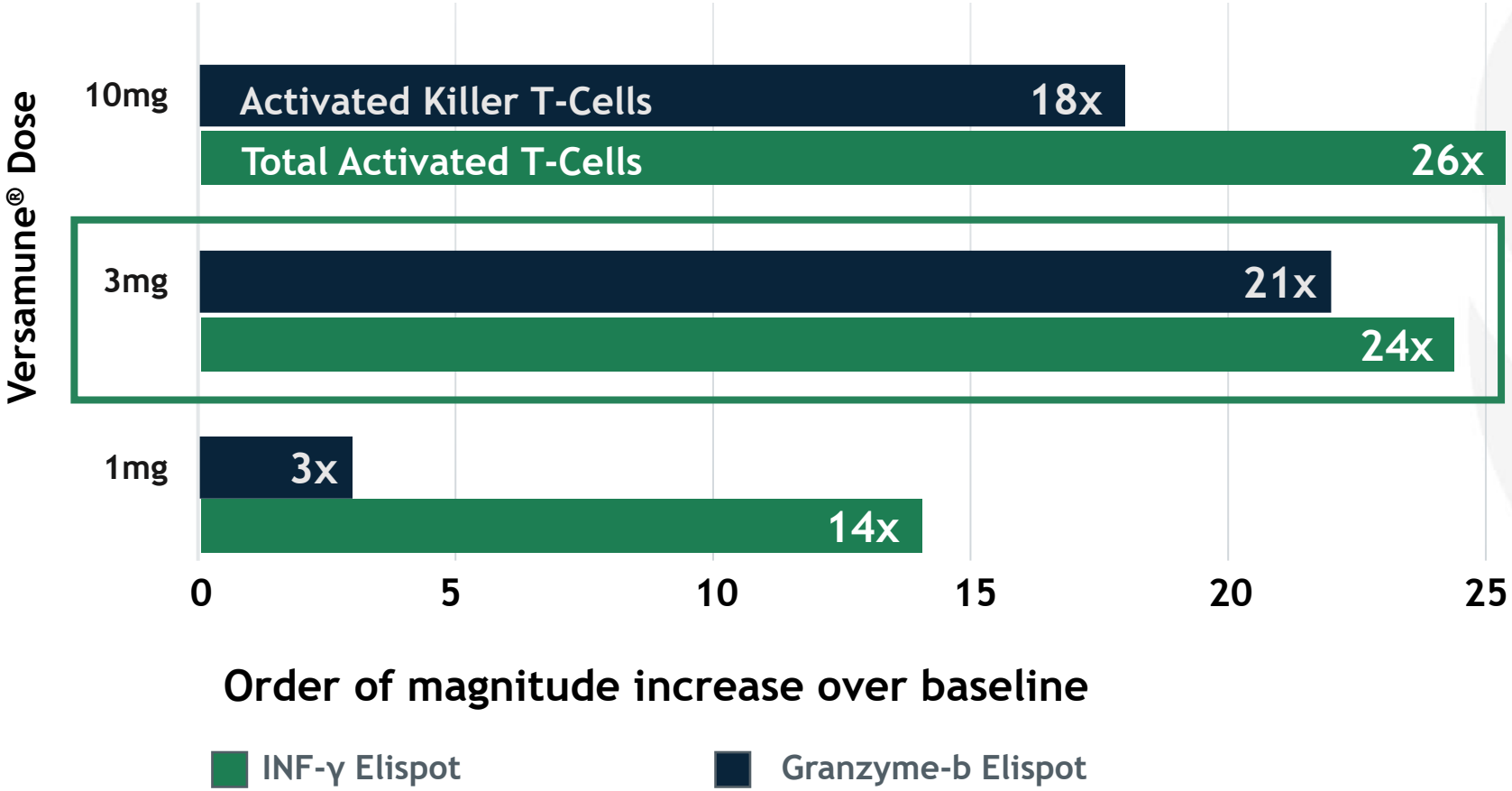
- **Oropharyngeal (head & neck) cancers**
  - >18,000 cases annually
  - Most common HPV-cancer in men, **90% of cases are HPV16-specific**
  - **Incidence increasing**
- **Cervical cancer**
  - ~12,000 cases annually
  - Most common HPV-cancer in women, 50-60% of cases are HPV16-specific
  - Incidence steady
- **Initial market research suggests market penetration of ~20% is reasonable for PDS0101**

PDS0101 combines the utility of Versamune® with a proprietary mix of HPV16 antigens, the most virulent high-risk HPV type, and by far the most prevalent in patients with HPV-associated cancer

References: Markowitz et al. 2016. Centers for Disease Control and Prevention. 2018.

PDS0101 Phase 1 clinical trial: Unique *in vivo* demonstration of high levels of HPV-specific killer T-cells in circulating blood

Clinical study results successfully demonstrate translation of Versamune®'s multi-functional mechanism of action between pre-clinical models and humans



Clinical Study Results in Patients with CIN

- Immunogenicity at Day 14
- Defined dose for Phase 2 studies (3mg)
- No dose-limiting toxicities

Reference: Data on file.

Follow-up of patients in PDS0101 Phase 1 study demonstrated promising clinical responses at all three tested doses

- A post-hoc, retrospective analysis, demonstrated complete lesion regression in at least 60% of evaluable patients (6/10) as early as 1-3 months after treatment
  - No lesion recurrence occurred within the 2-year evaluation period
- Spontaneous regression of CIN1 occurs in about 44% of patients over a 2-year duration*
- These results were remarkably positive as most patients were infected with multiple high-risk HPV types
- Two patients who had regression by cytology were not considered clinical responders:
  - The first regressed to atypical cells of undetermined significance at the first post-treatment evaluation (3 months) but HPV detected
  - The second had complete regression by cytology at the first post-treatment evaluation (3 months) but had residual CIN by colposcopy

Reference: Stefani C. et al, 2014, European Review for Medical and Pharmacological Sciences, 18: 728-733

Planned Phase 2 study of PDS0101 in combination with KEYTRUDA® in first-line treatment of recurrent/metastatic head and neck cancer (HNC)

- PDS Biotechnology-sponsored Phase 2 study with KEYTRUDA® supplied by Merck
  - Keytruda®: first immunotherapy approved as SOC for first line treatment of recurrent HNC
  - PDS0101 monotherapy demonstrated high levels of circulating CD8+ killer T-cells and therapeutic benefit
  - Unique immuno-oncology combination addressing first-line treatment of cancer
- Study design: Phase 2 open-label study
  - Primary endpoints: Efficacy, safety and tolerability
  - Inclusion criteria: Recurrent/metastatic head and neck cancer and HPV16 infection
  - PDS0101 dosed every 3 weeks for 4 doses (1st 4 cycles) with booster dose at cycle 12
  - Keytruda dosed every 3 weeks (1st 4 in combo w/ PDS0101) until disease progression, intolerance or 2 yrs
  - Clinical Trial Identifier: NCT04260126

Combination of PDS0101 and KEYTRUDA®
KEYTRUDA® alone

200 mg IV KEYTRUDA® every 21 days in combination with 3 mg SC PDS0101 at cycles 1, 2, 3, 4 and 12

Followed by open label SOC with KEYTRUDA® until disease progression or intolerance

Expected initiation: TBD pending level of COVID-19-related restrictions on health system operations

Investigator-Led Phase 2 studies of PDS0101 in combination therapy will evaluate efficacy and safety in treatment of advanced HPV cancers

Funded By	Phase 2 Open Label Study (Safety and Efficacy)	Important Considerations	Initiation
NIH NATIONAL CANCER INSTITUTE	• Advanced HPV-associated malignancies – all types • Triple combination with EMD Serono's M7824 and NHS-IL12 • 34 subjects • Clinical Trial Identifier: NCT04287868	• NCI selection and confirmation of synergies with PDS0101 • All three agents have demonstrated efficacy as monotherapies in early trials	**Initiated in June 2020**
THE UNIVERSITY OF TEXAS MD Anderson Cancer Center	• Advanced, localized cervical cancer (Stage IIb-IVa) • Combination with chemo-radiotherapy (CRT-standard of care) • 35 subjects	• T-cell induction has strong potential to enhance CRT anti-cancer efficacy • Mitigated risk • Potential for rapid market penetration and market leadership	**TBD pending level of COVID-19-related restrictions on health system operations**

Infectious Disease

PDS Biotech's infectious disease pipeline combines the Versamune® platform with proprietary antigens across several diseases

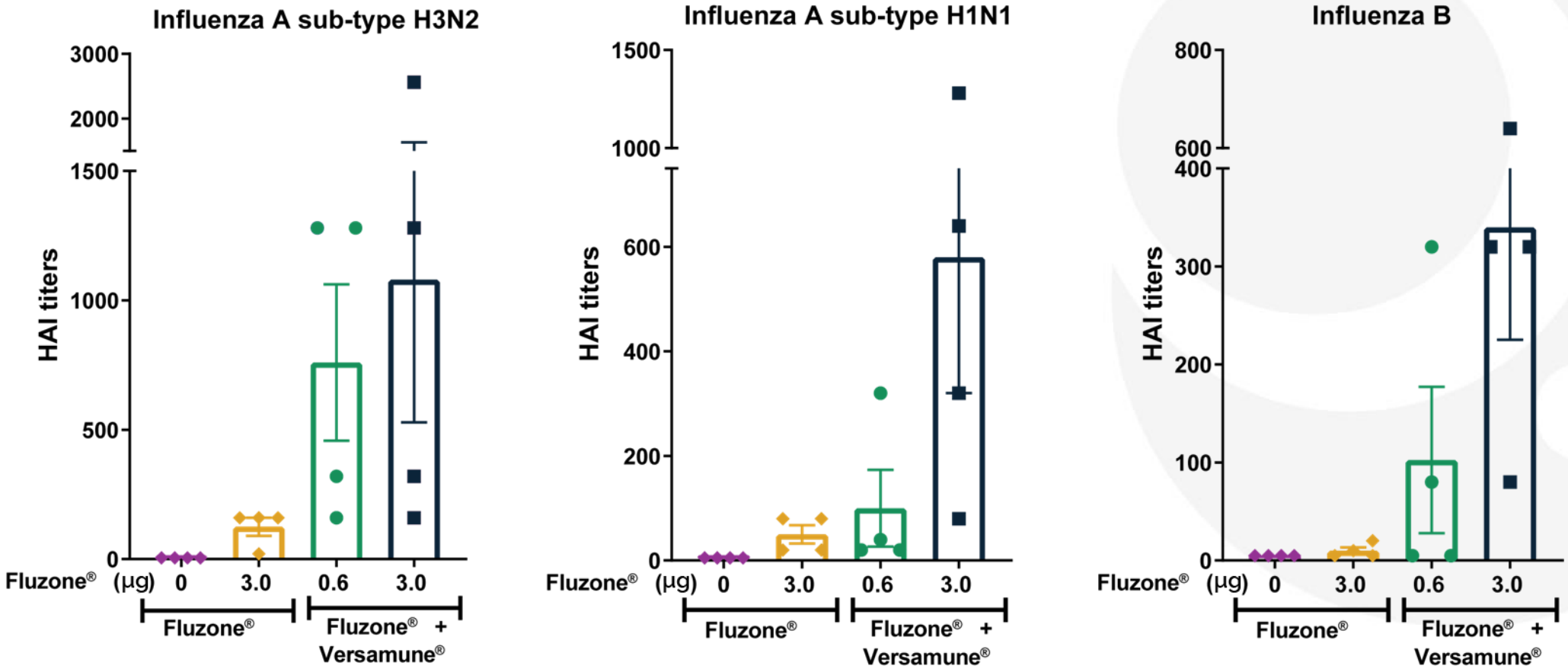
PRODUCT	INDICATION	COMBINATION	PC	P1	P2	P3	R	PARTNER(S)
Infectious Disease								
PDS0201 (M-tuberculosis)	Prevention of tuberculosis							Farma core
PDS0202 (influenza)	Universal prevention of influenza							NIH National Institute of Allergy and Infectious Diseases
PDS0203 (SARS-CoV-2)	Prevention of COVID-19							
PDS0204 (SARS-CoV-2FC)	Prevention of COVID-19							Farma core

PDS Biotech Funded Partner Co-Funded

Reference: Data on file.

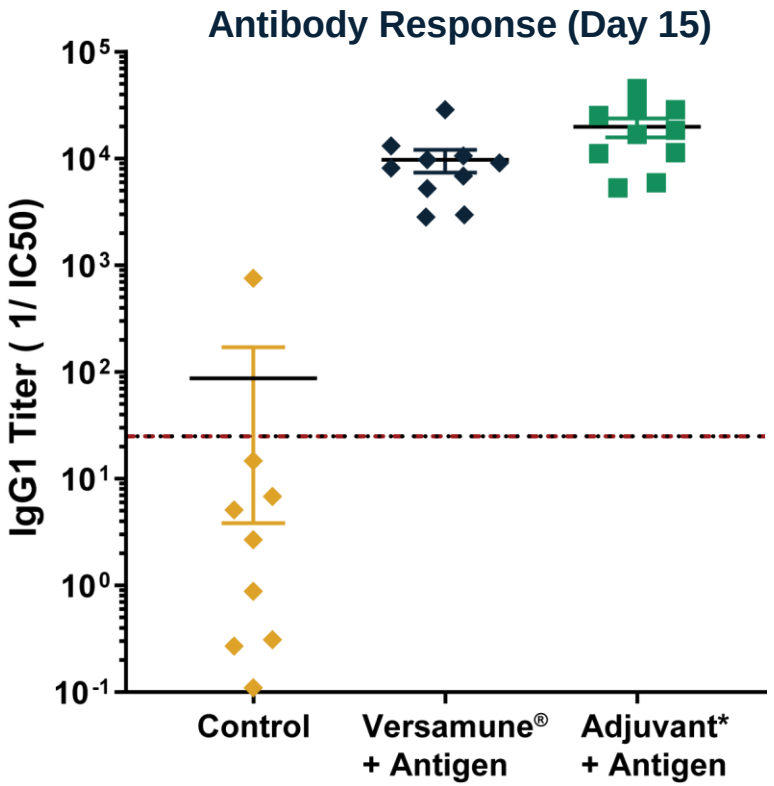
PDS0202: Versamune® dramatically enhances neutralizing antibody levels against various influenza strains and enables significant dose sparing

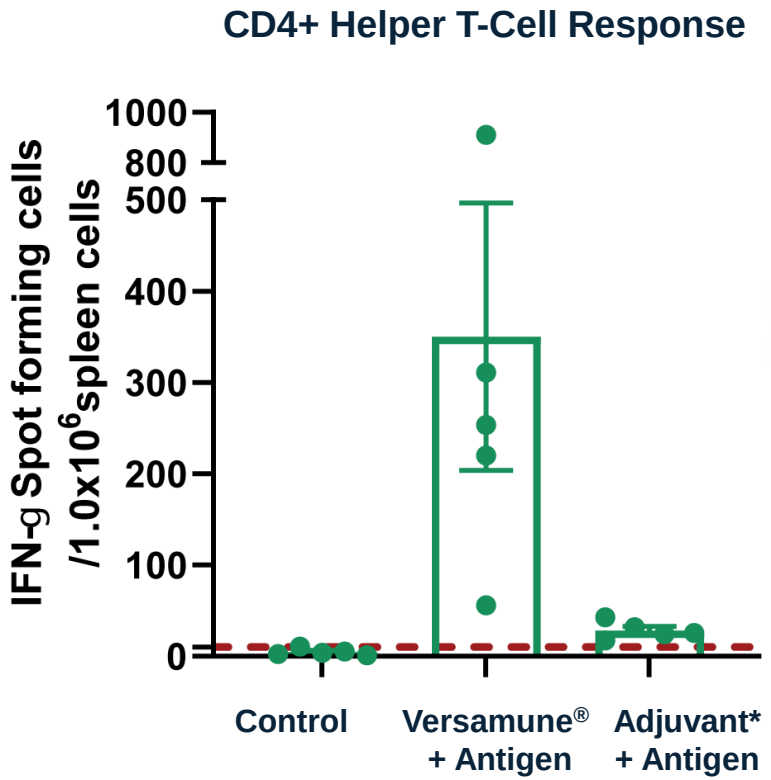
The addition of Versamune® to Fluzone®, a seasonal influenza vaccine, resulted in a 40-fold increase in protective HAI titers – achieving superior levels of HAI titers with 5-fold lower doses of Fluzone®

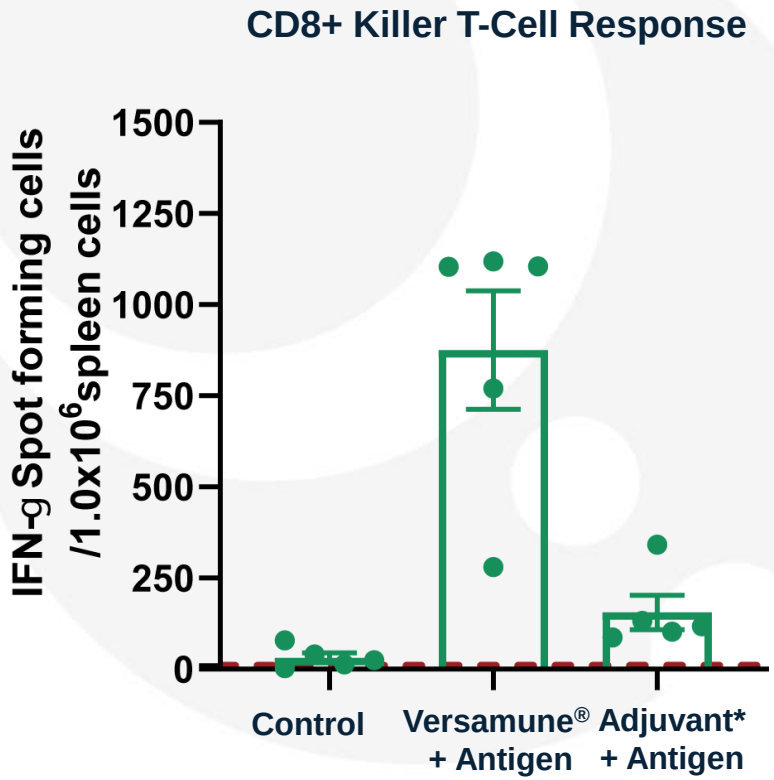


Versamune®-based vaccines induce strong antibody, helper and killer T-cell responses against an antigen to provide superior protection

Versamune® induces both potent antibody mediated responses and high levels of helper and killer T-cells vs. CFA when both are administered with the same recombinant protein antigen







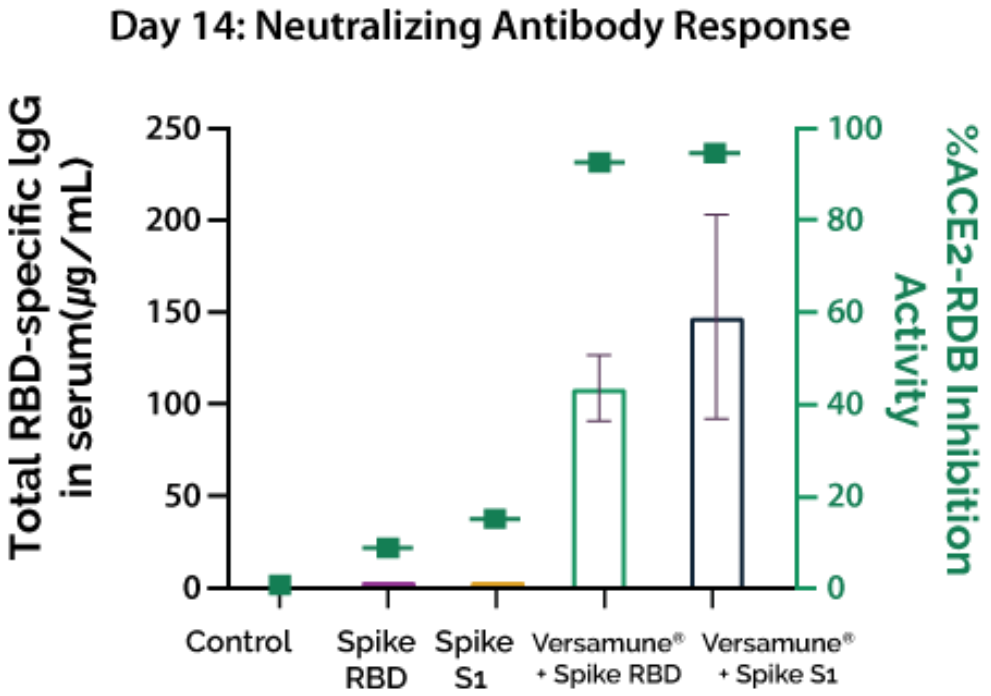
*Adjuvant = Complete Freund's Adjuvant (CFA) – A powerful immunological adjuvant that is too toxic for human use

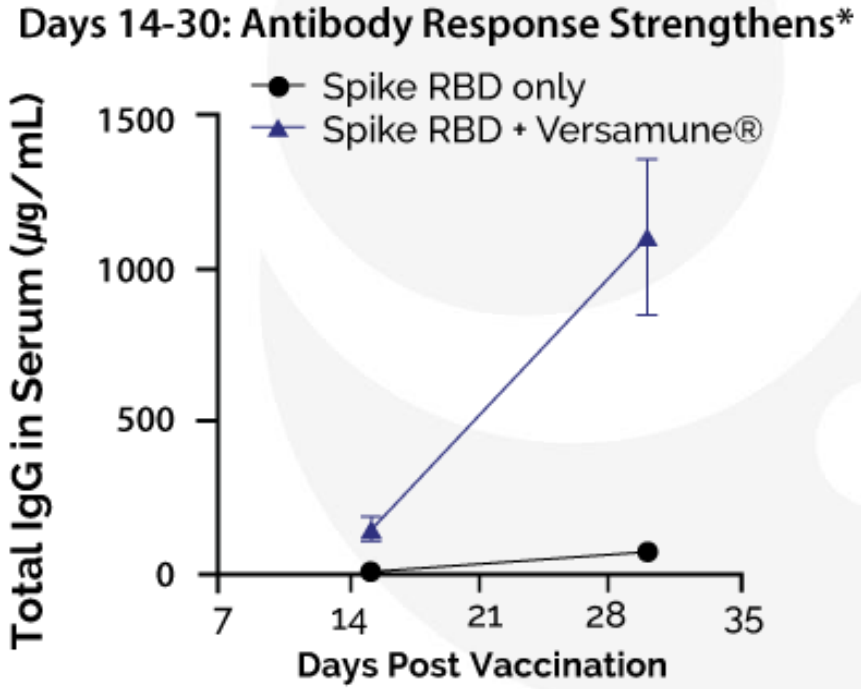
Preclinical testing of Versamune®-based COVID-19 vaccine candidates ongoing with a clear target profile

1. Induction of highly-potent, SARS-CoV-2-specific killer T-cells
2. Demonstrate high levels of both SARS-CoV-2-specific T-cell and antibody response after a single dose
3. No safety signals
4. Poised for rapid commercial scale up

PDS0203: Versamune®-based COVID-19 vaccine induces rapid and potent antibody responses to SARS-CoV-2 in two weeks

Initial preclinical data suggest Versamune® induces antibodies at a level equivalent to those observed in hospitalized COVID-19 patients within 2 weeks of vaccination



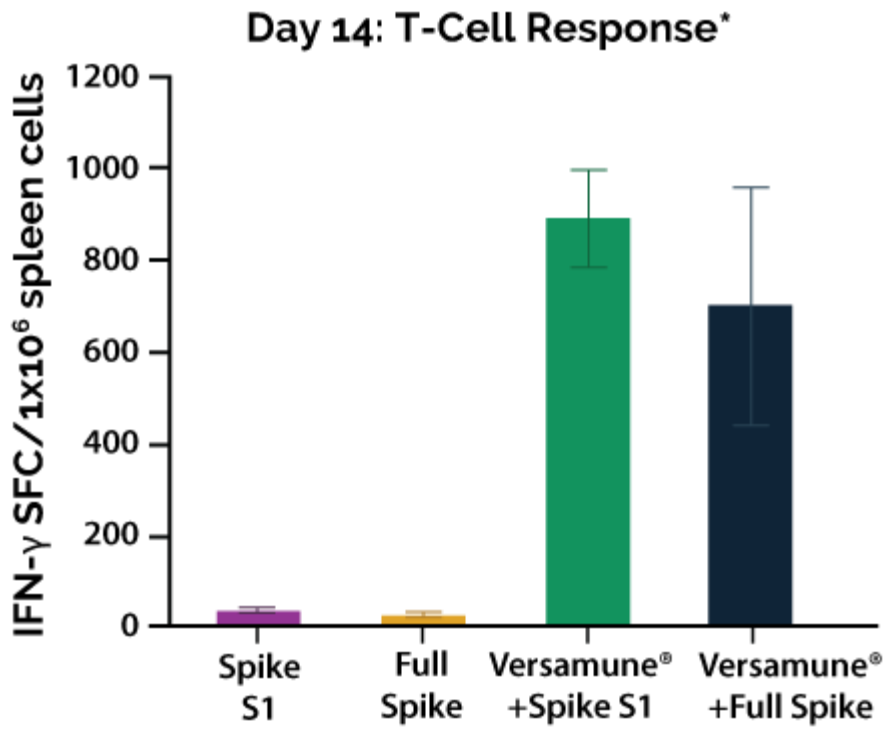


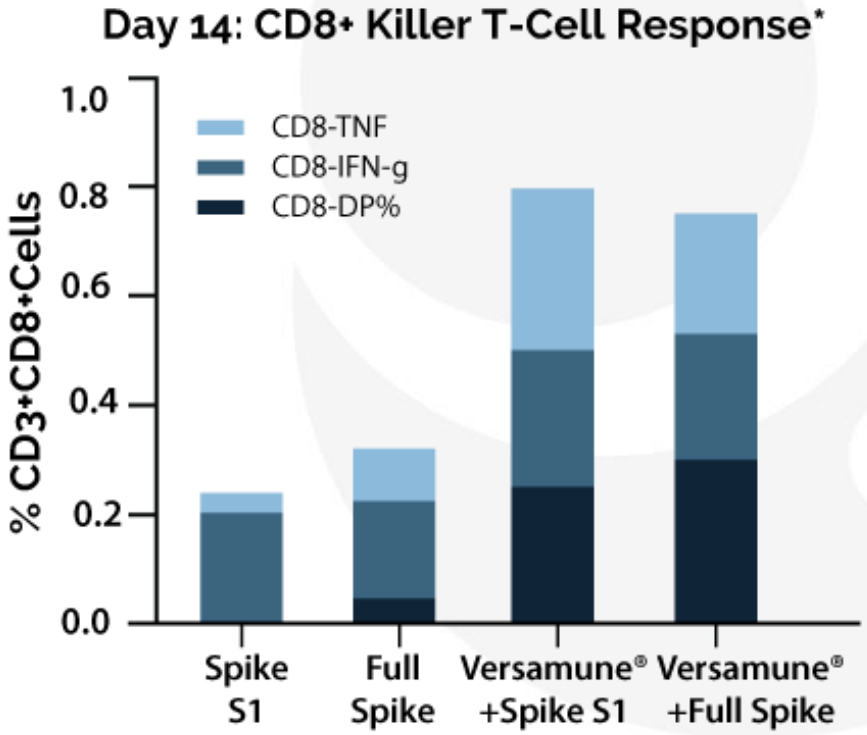
*Mice were immunized with two doses (day 0 and day 7) of vaccine, data collected 14- and 30-days post vaccination

PDS0203: Versamune®-based COVID vaccine uniquely induces strong T-cell responses against SARS-CoV-2 in two weeks

Preclinical data suggest Versamune® induces T-cells – including polyfunctional CD4+ (helper) & CD8+ (killer) T-cells - against SARS-CoV-2 when combined with either the Spike S1 protein or the full S-protein

Strong T-cell responses confirmed at 60 days: Long-lasting (memory T-cells)





Mice were immunized with two doses (day 0 and day 7) of vaccine, data collected 14 days post vaccination. T-cells were measured by ELISPOT and CD8+ killer T-cells were measured by flow cytometry
*Data for CD4+ T-cell response on file

Intellectual Property and Financials

Multiple layers of technology and product protection for Versamune®-related products through mid-2030s

- Versamune® and associated patents are owned and licensed by PDS Biotech
- Patents cover methods and compositions stimulating/promoting an immune response with Versamune® technology in various forms and mechanisms through 2034
  - Use of specific cationic lipids to induce an immune response
  - Compositions and use of any cationic lipid to activate MAP kinase
  - Compositions and use of R-DOTAP to induce immune response
  - Micellar antigen + cationic lipids compositions (US still ongoing)
  - Compositions of R-DOTAP with GM-CSF to reduce immune suppressive myeloid derived suppressor cells in the tumor
- Five issued international patent families (including Europe and Japan)

Strong financial position to support near-term milestones

Timing of 2020 milestones will be impacted by the COVID-19 pandemic

Nasdaq	PDSB
Shares Outstanding*	15.4M
Cash**	$21.0M
Share Price*	$3.89
Market Cap*	$59.9M
Debt*	---

- ✓ PDS0101 (HPV): Initiation of PDS Biotech-NCI Phase 2 combination study in advanced HPV-associated cancers
- PDS0101 (HPV): Initiation of PDS Biotech-MD Anderson Phase 2 combination study in advanced cervical-cancer
- PDS0201 (Mycobacterium tuberculosis): Complete development and feasibility testing
- PDS0202 (influenza): Complete development and feasibility testing
- PDS0203 and PDS0204 (SARS-CoV-2): Complete development and feasibility testing

* July 27, 2020

** March 31, 2020

PDS Biotech poised to transform vaccines and cancer treatment by fulfilling the promise of immunotherapy

1. Powerful immunotherapy platform that activates therapeutic and preventive immunological pathways
2. Demonstrated potential for strong clinical efficacy and durability of response with minimal toxicity
3. Diversified pipeline focused on oncology and infectious disease
4. Clinical studies in areas of high unmet medical need supported by leaders in the field

PDS Biotechnology

A new generation of multi-functional cancer immunotherapies