Developing Transformational Immunotherapies for Cancer

PDS Biotechnology

Precision Designed Science For Immunotherapy

NASDAQ: PDSB

September 2023

© 2023 PDS Biotechnology. All Rights Reserved.

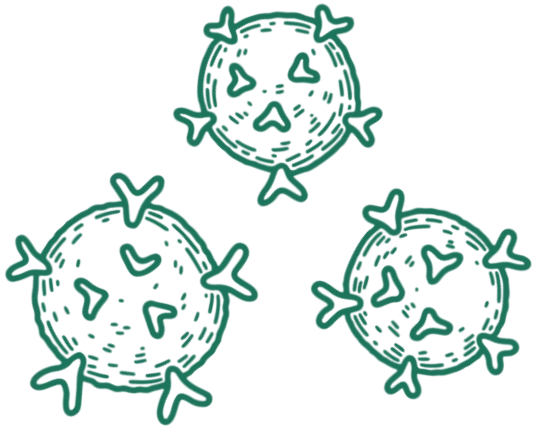
Forward-Looking Statements

This communication contains forward-looking statements (including within the meaning of Section 21E of the United States Securities Exchange Act of 1934, as amended, and Section 27A of the United States Securities Act of 1933, as amended) concerning PDS Biotechnology Corporation (the "Company") and other matters. These statements may discuss goals, intentions and expectations as to future plans, trends, events, results of operations or financial condition, or otherwise, based on current beliefs of the Company's management, as well as assumptions made by, and information currently available to, management. Forward-looking statements generally include statements that are predictive in nature and depend upon or refer to future events or conditions, and include words such as "may," "will," "should," "would," "expect," "anticipate," "plan," "likely," "believe," "estimate," "project," "intend," "forecast," "guidance", "outlook" and other similar expressions among others. Forward-looking statements are based on current beliefs and assumptions that are subject to risks and uncertainties and are not guarantees of future performance. Actual results could differ materially from those contained in any forward-looking statement as a result of various factors, including, without limitation: the Company's ability to protect its intellectual property rights; the Company's anticipated capital requirements, including the Company's anticipated cash runway and the Company's current expectations regarding its plans for future equity financings; the Company's dependence on additional financing to fund its operations and complete the development and commercialization of its product candidates, and the risks that raising such additional capital may restrict the Company's operations or require the Company to relinquish rights to the Company's technologies or product candidates; the Company's limited operating history in the Company's current line of business, which makes it difficult to evaluate the Company's prospects, the Company's business plan or the likelihood of the Company's successful implementation of such business plan; the timing for the Company or its partners to initiate the planned clinical trials for PDS0101 and other Versamune® and Infectimune® based product candidates; the future success of such trials; the successful implementation of the Company's research and development programs and collaborations, including any collaboration studies concerning PDS0101 and other Versamune® and Infectimune® based product candidates and the Company's interpretation of the results and findings of such programs and collaborations and whether such results are sufficient to support the future success of the Company's product candidates; the success, timing and cost of the Company's ongoing clinical trials and anticipated clinical trials for the Company's current product candidates, including statements regarding the timing of initiation, pace of enrollment and completion of the trials (including the Company's ability to fully fund its disclosed clinical trials, which assumes no material changes to the Company's currently projected expenses), futility analyses, presentations at conferences and data reported in an abstract, and receipt of interim or preliminary results (including, without limitation, any preclinical results or data), which are not necessarily indicative of the final results of the Company's ongoing clinical trials; any Company statements about its understanding of product candidates mechanisms of action and interpretation of preclinical and early clinical results from its clinical development programs and any collaboration studies; to aid in the development of the Versamune® platform; and other factors, including legislative, regulatory, political and economic developments not within the Company's control. The foregoing review of important factors that could cause actual events to differ from expectations should not be construed as exhaustive and should be read in conjunction with statements that are included herein and elsewhere, including the risk factors included in the Company's annual, quarterly and periodic reports filed with the SEC. The forward-looking statements are made only as of the date of this press release and, except as required by applicable law, the Company undertakes no obligation to revise or update any forward-looking statement, or to make any other forward-looking statements, whether as a result of new information, future events or otherwise.

Versamune® and Infectimune® are registered trademarks of PDS Biotechnology Corporation
KEYTRUDA® is a registered trademark of Merck Sharp and Dohme LLC, a subsidiary of Merck & Co., Inc., Rahway, NJ, USA

Executive Summary: Positioned for Market Leadership

Company Overview



T cell activating platforms and antibody conjugated immuno-cytokine platform to develop safer, more effective and longer lasting **cancer immunotherapies**

1. PDS0101 to enter **Phase 3 registrational trial** in 2023 to treat recurrent or metastatic, HPV16-positive head and neck squamous cell cancer (HNSCC)

2. **Fast Track Designation**
   PDS0101 addresses large and growing market with significant unmet need

3. **Transformational data** generated with PDS0101 and PDS0301 in multiple Phase 2 clinical studies

4. **Financial:** Cash as of June 30, 2023 - $60.6M- Adequate cash runway for the next 12 months with initiation of a registrational trial in 2023

Experienced Management Team

Historical success in 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)

CardinalHealth · KBI BIOPHARMA · elan · Schering-Plough

Matthew Hill
Chief Financial Officer

- 20 years of financial and operational leadership roles for life sciences companies
- Former Chief Financial Officer of several publicly traded companies

Velcera · STRATA SKIN SCIENCES · EPMedSystems

Lauren V. Wood, MD
Chief Medical Officer

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

NIH National Cancer Institute · NIH National Institute of Allergy and Infectious Diseases

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

MERCK · FUJIFILM Diosynth biotechnologies · REGENERON

PDS Biotech Versamune® Overview

Designed to address limitations of current immunotherapy

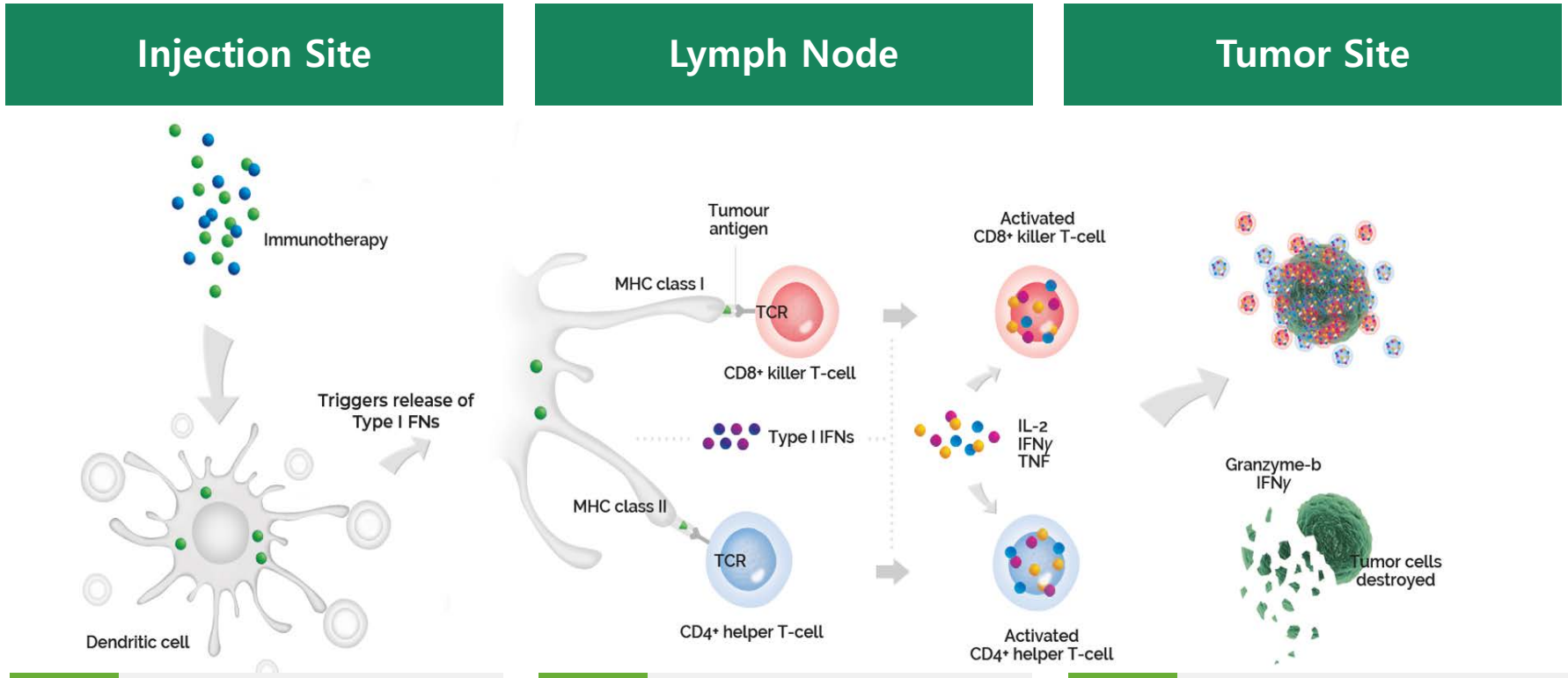
Versamune®

PLATFORM:

Induces powerful, long-lasting anti-tumor response by promoting uptake of tumor-specific proteins by the immune system and activates a specific signaling pathway that promotes the production of active tumor-infiltrating multifunctional CD8 killer and CD4 helper T cells

Product Candidates			
PDS0101	**PDS0102**	**PDS0103**	**PDS0104**

Versamune® Induces the Right Type, Potency and Quantity of Multifunctional Killer and Helper T Cells



1 **Recruits T cells to lymph nodes**

2 **Trains T cells to target tumors**

3 **Arms T cells to kill tumor cells**

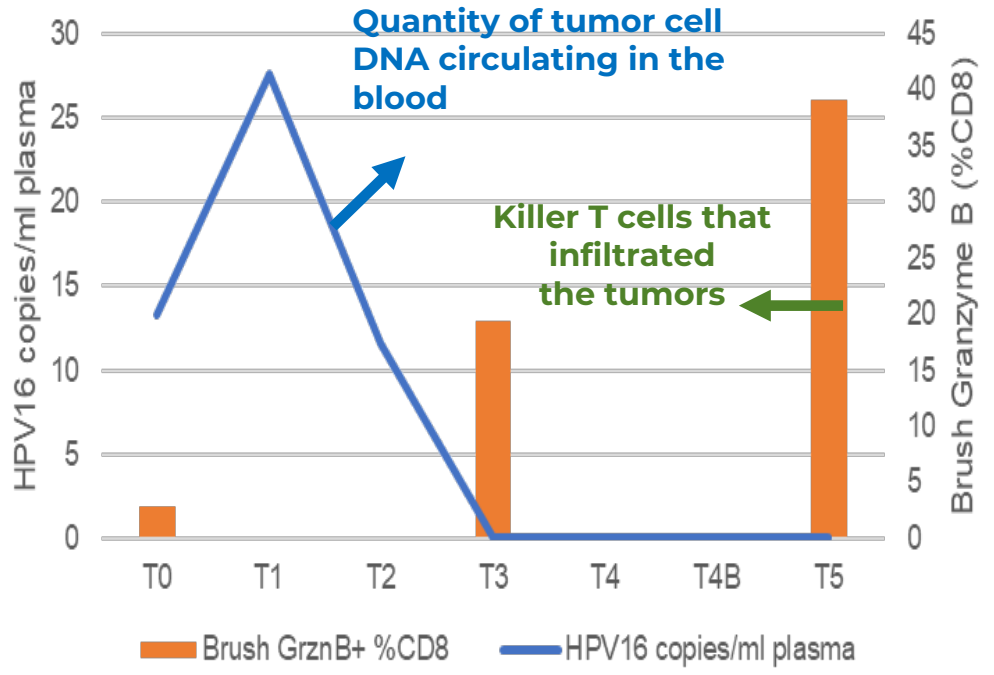
- Comprised of positively charged lipid (R-DOTAP) co-administered with proprietary tumor-specific proteins, **delivered via subcutaneous injection**
- Delivers antigen to CD4 and CD8 T cells. Activates the Type I Interferon pathway, leading to **potent, multifunctional, antigen specific T cell responses**
- Human clinical trials confirm induction and accumulation of **multifunctional T cells in the tumor**, which correlated with clinical response and elimination of circulating tumor DNA and clinical response (SITC 2022)

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. Smalley Rumfield C et al. 2020. Immunomodulation to enhance the efficacy of an HPV therapeutic vaccine. J. for ImmunoTherapy of Cancer 8:e000612.

IMMUNOCERV: PDS0101 Appears to Induce Clinically Beneficial Killer (CD8) T Cells

Induction of activated CD8 T cells correlates with elimination of circulating tumor DNA[1]

Representative Subject



- PDS0101 activates the immune system to generate active killer T cells (CD8 T) cells that induce a critical mediator of the T cell's tumor-killing function called granzyme-B
- Multifunctional killer T cells target, infiltrate and eliminate the cervical cancer tumors
- HPV16 tumor DNA in the blood circulation declines by day 170 (T5)

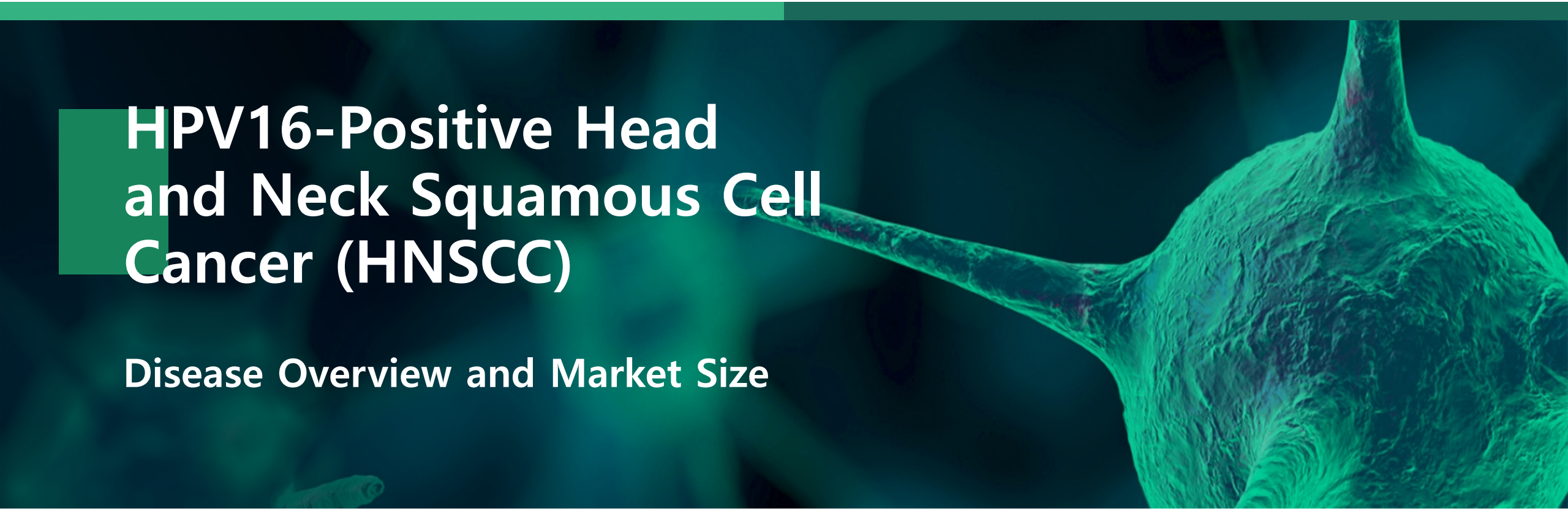
IMMUNOCERV (PDS0101+Chemoradiation) Trial[1]:

- Predominantly stage III and IV cervical cancer
- Locally advanced cancer with tumors > 5cm (high-risk patients)
- 100% (9/9) clinical response rate with 60 days
- No evidence of cancer in 89% (8/9) by Day 170

[1]Yoshida-Court et al,, IMMUNOCERV, an ongoing Phase II trial combining PDS0101, an HPV-specific T cell immunotherapy, with chemotherapy and radiation for treatment of locally advanced cervical cancers (NCT04580771); SITC 2022

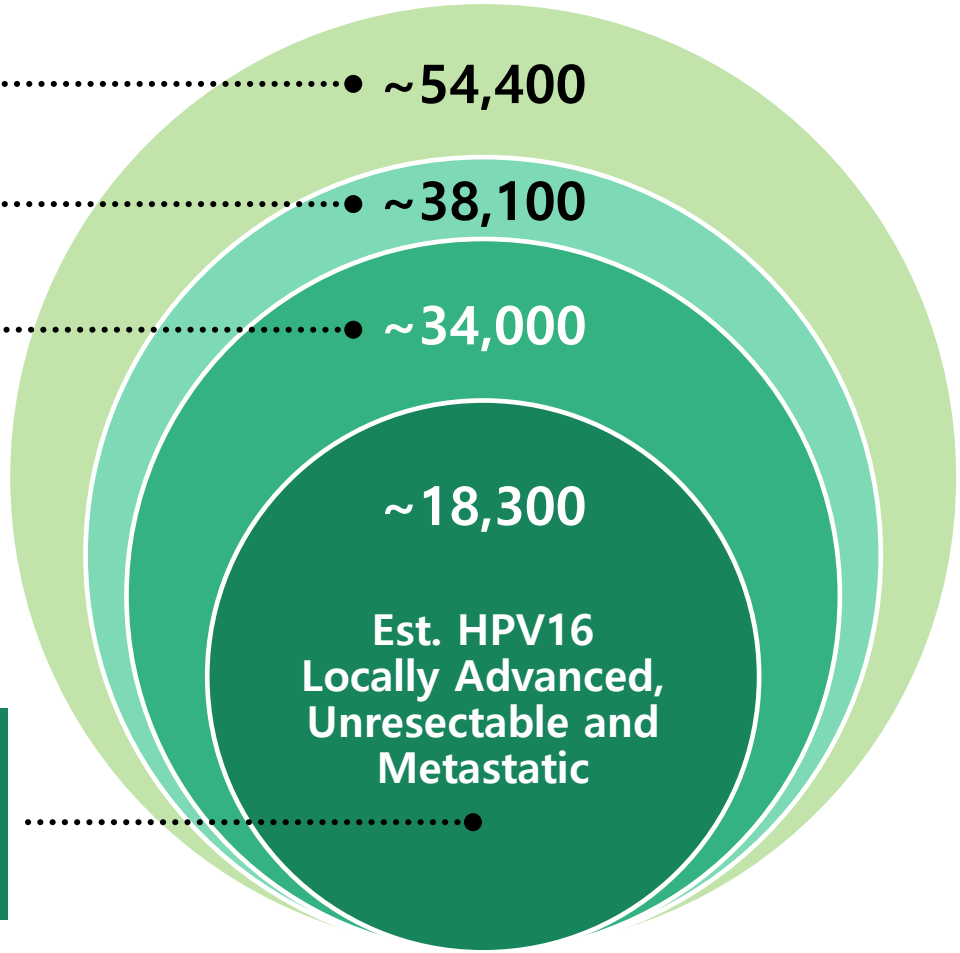
HPV16-Positive Head and Neck Squamous Cell Cancer (HNSCC)

Disease Overview and Market Size



HPV16-positive HNSCC Presents a Significant Market Opportunity

Largely Attributed to the High Rate of Oral HPV Infections in Men



$2-3B Market Opportunity in US[1]

Initial commercial opportunity for PDS0101

No available HPV specific therapy

HPV cancer incidences continue to increase despite preventive HPV vaccine

HPV vaccination is not expected to impact the rate of HPV-positive cancer incidence for the near-term

Existing immunotherapies cost $150,000+ annually per patient[1]

Data sources: [1] PD-L1 negative and PD-L1 positive populations (> 9000 incidence PD-L1 Positive)
https://seer.cancer.gov/statfacts/html/oralcav.html; https://www.cdc.gov/cancer/hpv/basic_info/hpv_oropharyngeal.htm; https://virologyj.biomedcentral.com/articles/10.1186/s12985-021-01688-9; https://seer.cancer.gov/statistics-network/explorer/application.html?site=3&data_type=1&graph_type=4&compareBy=sex&chk_sex_1=1&race=1&age_range=1&advopt_precision=1&hdn_view=0; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5002133/

Despite the Availability of Treatments, Significant Unmet Needs Remain in Recurrent or Metastatic HNSCC

Standard of Care for Recurrent or Metastatic HNSCC – Published Results*[1]

	KEYTRUDA®	KEYTRUDA® Plus Chemo	Chemotherapy + EGFR Inhibitor
Objective Response Rate (ORR)	19%	36%	35%
Progression Free Survival (PFS)	3.2 mos	5.0 mos	5.0 mos
12-Month Survival Rate	50%	55%	44%
Median Overall Survival (OS)	12.3 mos	13.6 mos	10.3 mos
Key Toxicities	• Anemia • Fatigue • Weight loss • Hypokalemia	Additional to KEYTRUDA®: • Neutropenia • Mucosal inflammation • Thrombocytopenia • Stomatitis	• Neutropenia • Anemia • Thrombocytopenia • Nausea/vomiting • Hypokalemia • Rash • Fatigue • Mucosal inflammation
Treatment Related Grade 3+ Toxicities	17%	72%	69%

Oncologist[2] – Stated Unmet Medical Needs in HNSCC

- Targeted treatment option to address the growing population of HPV16-positive HNSCC and improve outcomes
- Novel MOA that is clinically effective in a broader patient population and provides more durable responses.
- Safer and more effective treatments that may be used with or in place of current standard of care
- Better tolerability and less toxic alternatives to chemotherapy

[1]KEYNOTE-048 Study Burtness B et al, Lancet 2019
[2]Primary Market Research 2022

* No control or comparative studies have been conducted between immune checkpoint inhibitors and PDS0101

PDS0101 for HPV16-Positive HNSCC

VERSATILE-002 Phase 2 Clinical Trial

Objective: To assess the combination of PDS0101 and KEYTRUDA® in ICI naïve subjects with recurrent or metastatic HPV-positive HNSCC

Partner

MERCK

Fast Track Designation

FDA Approved Standard of Care

KEYTRUDA® (pembrolizumab)

Study Design

Open-label, non-randomized, adaptive design study

N=54

Enrollment complete

Key Entry Criteria for ICI Naïve Subjects

Recurrent or metastatic HNSCC

≥18 years of age

HPV16-Positive tumor

Combined positive score (CPS) ≥1

Study Treatment

Pembrolizumab 200mg IV Q3W up to 35 Cycles (2 years)

PDS0101 1 mL subcutaneous injection at Cycles 1, 2, 3, 4 and 12

Endpoints

Primary:

Best overall response (BOR) of confirmed complete response (CR) or confirmed partial response (PR) per RECIST 1.1

Key Secondary:

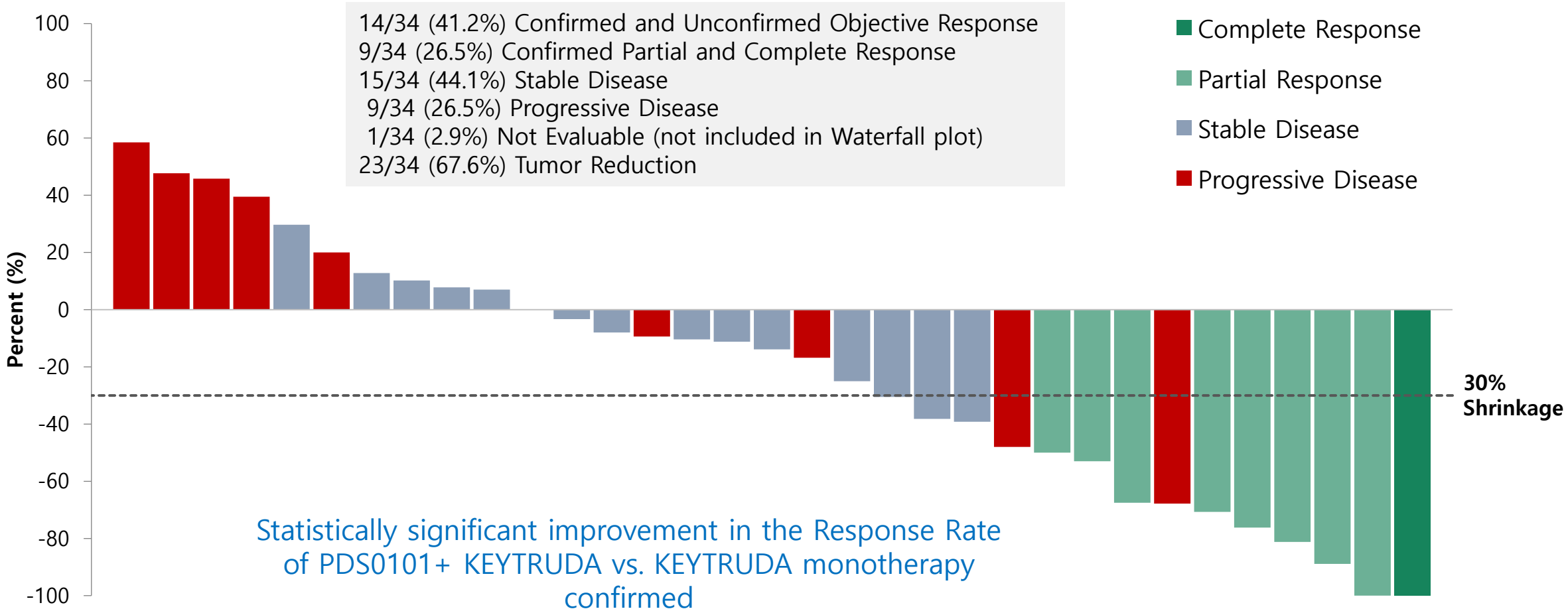
Progression Free Survival (PFS) per RECIST 1.1

Overall Survival (OS)

Safety and tolerability

Achievement of Statistical Threshold for efficacy

To Date 70.6% of Patients have Achieved Disease Stabilization or Tumor Shrinkage



Confirmed best overall response was determined based on confirmed CR or confirmed PR per RECIST 1.1 per investigator assessment. One subject (NE) died prior to target lesion measurement and is included in the mITT population denominator. Four subjects experienced unconfirmed tumor shrinkage and subsequently experienced progressive disease.

The Addition of PDS0101 to KEYTRUDA® Does not Appear to Compound Toxicity

PDS0101+KEYTRUDA® Treatment Related Adverse Events (TRAE) ≥5% (ITT Population)

PSD0101-KEYTRUDA® TRAE by Grade	
Grade 1	13 (27.1)
Grade 2	19 (39.6)
Grade 3	4 (8.3)
Grade 4	0
Grade 5	0

- Only 4 subjects (8%) had Grade 3 PDS0101-KEYTRUDA® TRAEs: fatigue, injection site reaction, blood alkaline phosphatase increased, hyperglycemia, colitis, and rash
- No subjects had Grade 4 or 5 TRAEs
- No subject came off study due to toxicity

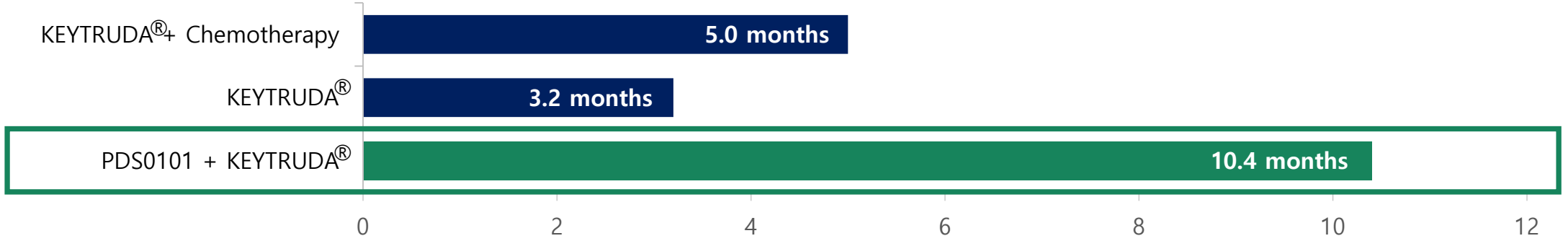
Safety data in approximately 120 patients to date across multiple Phase 1 and 2 Studies

Safety data, anti-tumor responses and patient survival suggest that the Versamune® based therapies such as PDS0101 could be ideal candidates for combination oncology treatments

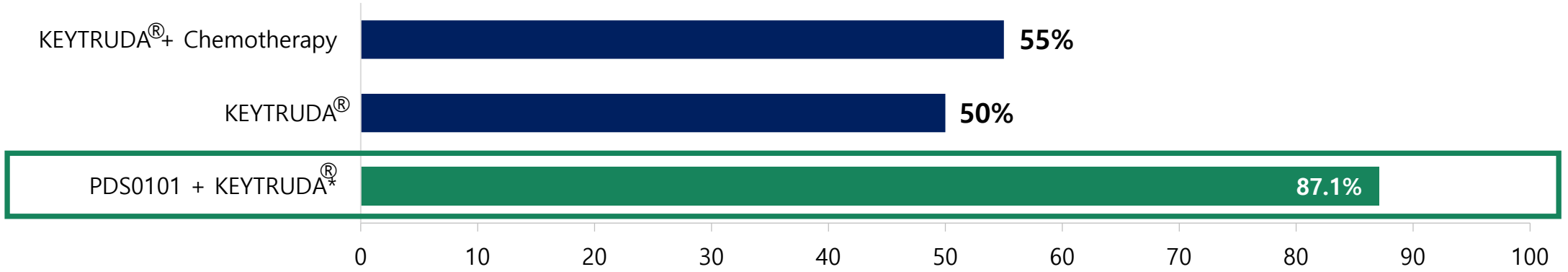
Data Suggests Prolonged Responses (Durability) and Patient Survival

PDS0101 + KEYTRUDA® Data – Median PFS and 12 Month OS

Median Progression Free Survival (Months)



12-Month OS Rate (%)*



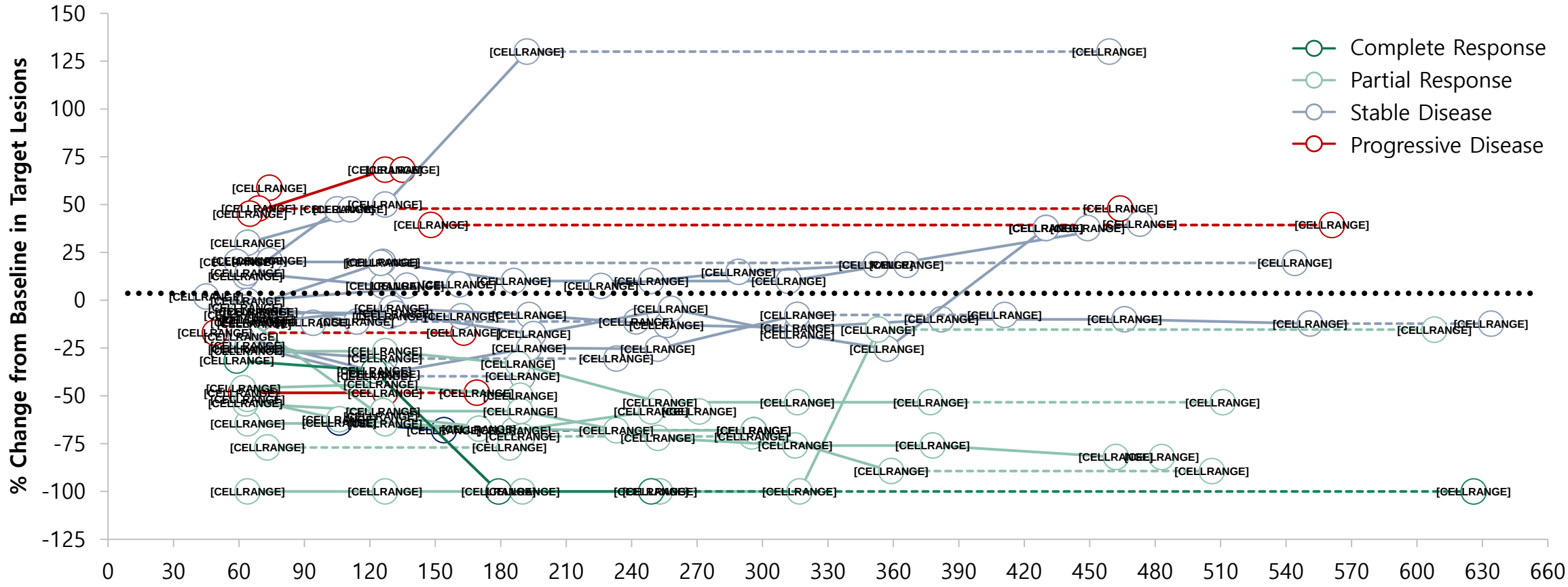
*median OS for PDS0101 + KEYTRUDA® not yet reached

KEYNOTE-048: Burtness B et al. Lancet 2019;394:1915-28, Published results for reference only

No control or comparative studies have been conducted between immune checkpoint inhibitors and PDS0101

Several Patients Approaching Two Years of Survival

Demonstrated objective response rate of 41% (confirmed and unconfirmed)



Time of Target Lesions Assessment and Overall Survival Status (Days from Dose 1)

Overall response: CR=Complete Response; PR=Partial Response; SD=Stable Disease; PD=Progressive Disease; NE=Not Evaluable.
Overall response was based on investigator assessment per RECIST v1.1.
Survival status: A=Alive; D=Deceased. Alive subjects were based on the last contact date.
No control or comparative studies have been conducted between immune checkpoint inhibitors and PDS0101

VERSATILE-003 Timeline to Registrational Trial Initiation

Worldwide Randomized, Controlled Clinical Study to Be Initiated Q4 2023 with an Overall Estimated 90–100 Sites

PDS0101 + KEYTRUDA® in Recurrent or Metastatic HPV16-Positive HNSCC

2Q 2022

- **FDA *Fast Track designation*** for PDS0101 + KEYTRUDA®

3Q 2022

- Successful EOP2 meeting with FDA
- Initiated PDS0101 tech-transfer, scale up at selected Phase 3 clinical/ commercial manufacture

1Q 2023

- Completed Phase 3 clinical manufacturing of PDS0101
- Obtained visibility to potential OS and PFS information for VERSATILE-002 trial needed to finalize VERSATILE-003 trial design

2Q 2023

- Completed CMC-related activities for PDS0101
- Obtained feedback from EU regulatory agencies on protocol

3Q 2023

- Submitted amended IND with FDA for registrational trial
- Initiate site activation and related clinical, operational activities (4- to 6-month process)

4Q 2023

Initiate VERSATILE-003 Phase 3 Trial

VERSATILE-002 Phase 2 Trial Progressing

Versamune® Based Oncology Pipeline

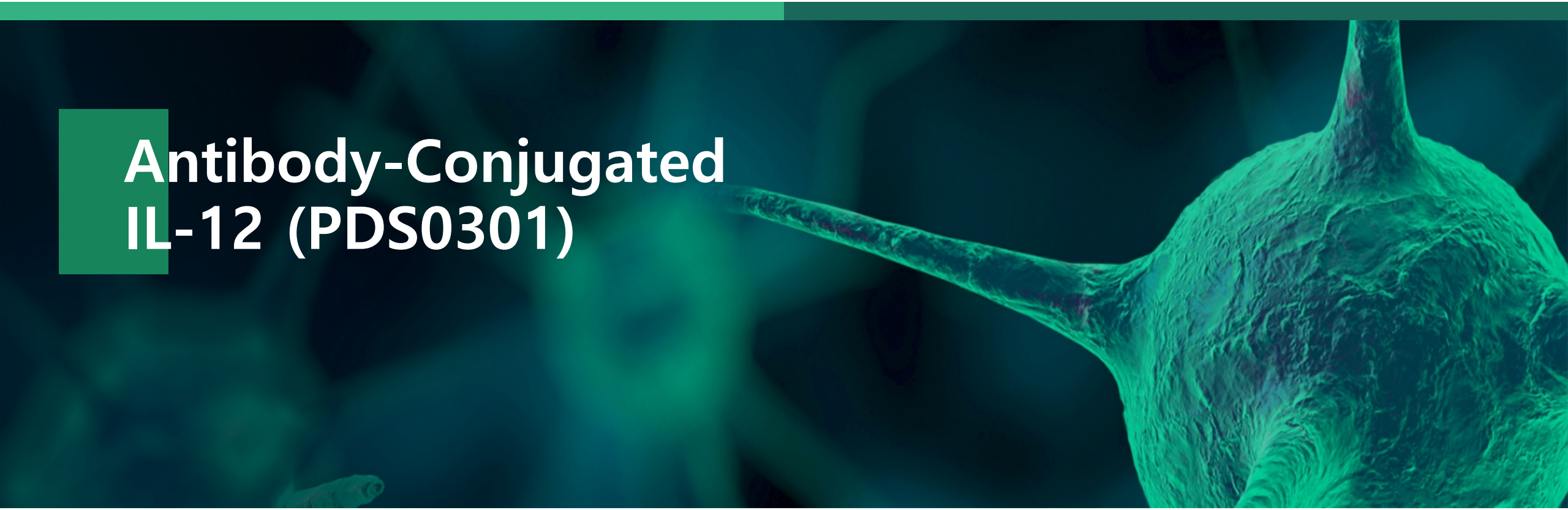
Partnerships with World Class Institutions in Immuno-Oncology

	Candidate/ Study	Indication	Combination	PC	P1	P2	P3	R	Partner(s)
Clinical (Lead)	**PDS0101 (HPV)/ VERSATILE-002**	Recurrent or metastatic HPV16-positive head and neck cancer • **Arm 1:** ICI naïve • **Arm 2:** ICI refractory	KEYTRUDA® (standard of care)			*Fast Track Designation*			MERCK
IIT Studies	**PDS0101 (HPV)/ IMMUNOCERV**	1st-line treatment of locally advanced (IB3-IVA) cervical cancer	Chemo-radiation (standard of care)						THE UNIVERSITY OF TEXAS MD Anderson Cancer Center
	PDS0101 (HPV)/ Mayo Clinic	Pre-metastatic HPV-positive oropharyngeal cancer (OPSCC) • **Arm 1:** PDS0101 monotherapy • **Arm 2:** PDS0101 + KEYTRUDA®	KEYTRUDA® (standard of care)						MAYO CLINIC
Preclinical Candidates	**PDS0102 (TARP)**	TARP-positive AML, prostate and breast cancers	TBD						NIH NATIONAL CANCER INSTITUTE
	PDS0103 (MUC1)	MUC1-positive breast, colon, lung, ovarian and other cancers	TBD						NIH NATIONAL CANCER INSTITUTE
	PDS0104 (TRP2)	Melanoma	TBD						

PDS Biotech Funded Partner Co-Funded

Reference: Data on file.

Antibody-Conjugated IL-12 (PDS0301)



PDS Biotech Antibody-Conjugated IL-12 (PDS0301) Overview

Antibody-Conjugated IL-12

- PDS0301 is a novel investigational tumor-targeting IL-12 that enhances the proliferation, potency and longevity of T cells in the tumor microenvironment

Opportunities

- Monotherapy
- Combinations:
  - Versamune® Based Immunotherapies
  - Chemotherapy
  - Radiation
  - HDAC Inhibitors*

*Histone Deacetylase Inhibitor

NCI-led Triple Combination: PDS0301 + PDS0101 + ICI

Advanced HPV16-Positive Anal, Cervical, Head and Neck, Penile, Vaginal, Vulvar Cancer Patients Who Are ICI Refractory

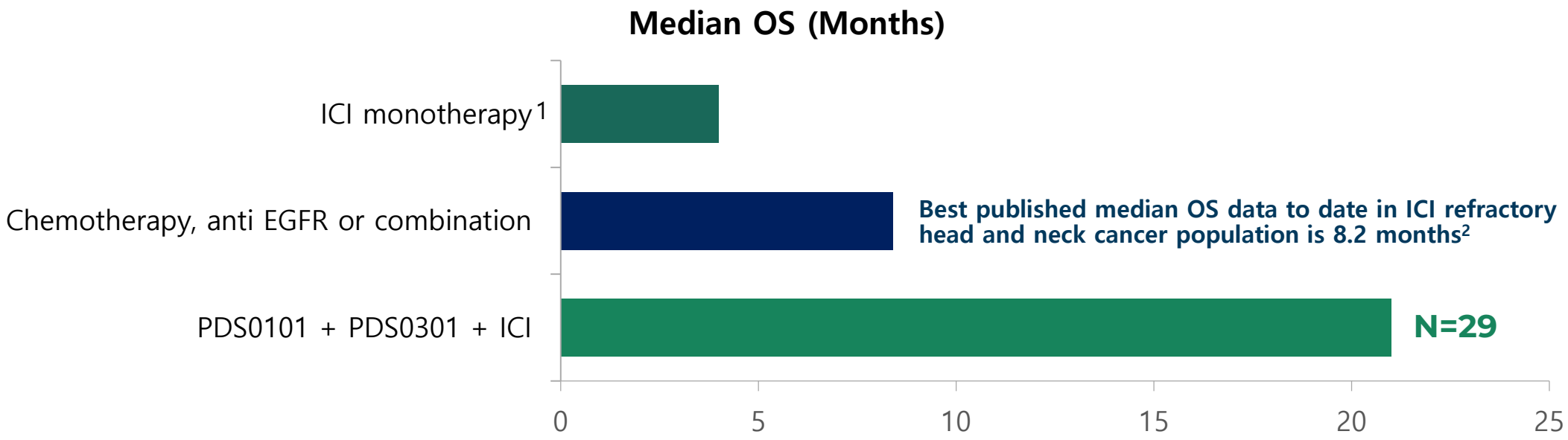
Partner	NIH NATIONAL CANCER INSTITUTE
FDA Approved Standard of Care	None
Immunology/ Immune Correlates	SITC, November 2022: • Greater than two-fold increase in HPV16-specific T cells in the blood of 11/14 (79%) of the evaluated patients • Induction of multifunctional killer (CD8) T cells • Increases in granzyme B (associated with active killer T cells), IFN-γ, TNF-α, etc., signal a pro-inflammatory response and role in overcoming tumor immune suppression
Safety	Safety results (Arms 1 & 2)[1] • 24/50 (48%) of patients experienced grade 3 and higher adverse events • 2/50 (4%) experienced grade 4 adverse events

[1]72% grade 3 and higher adverse events reported in KEYNOTE-048 Burtness 2019 https://doi.org/10.1016/S0140-6736(19)32591-7
Goswami 2022 http://dx.doi.org/10.1136/jitc-2022-SITC2022.0695

NCI-led Triple Combination: PDS0301 + PDS0101 + ICI

Advanced HPV16-Positive ICI Refractory Cancer Patients

Phase 2 Results in Recurrent Metastatic ICI Refractory HPV-Positive Cancer (CPS>0; PD-L1 agnostic) Plot Includes Published Data in HSNCC



Objective Response (ORR) in High Dose PDS0301 Group = 63% (5/8)*

[1]Published results for ICI monotherapy <10%, Strauss J, et al. J Immunother Cancer 2020;8:e001395. doi:10.1136/jitc-2020-001395
[2]Pestana RC et al. Oral Oncology 2020;101:104523. https://doi.org/10.1016/j.oraloncology.2019.104523

No controlled or comparative studies have been conducted between immune checkpoint inhibitors and PDS0101

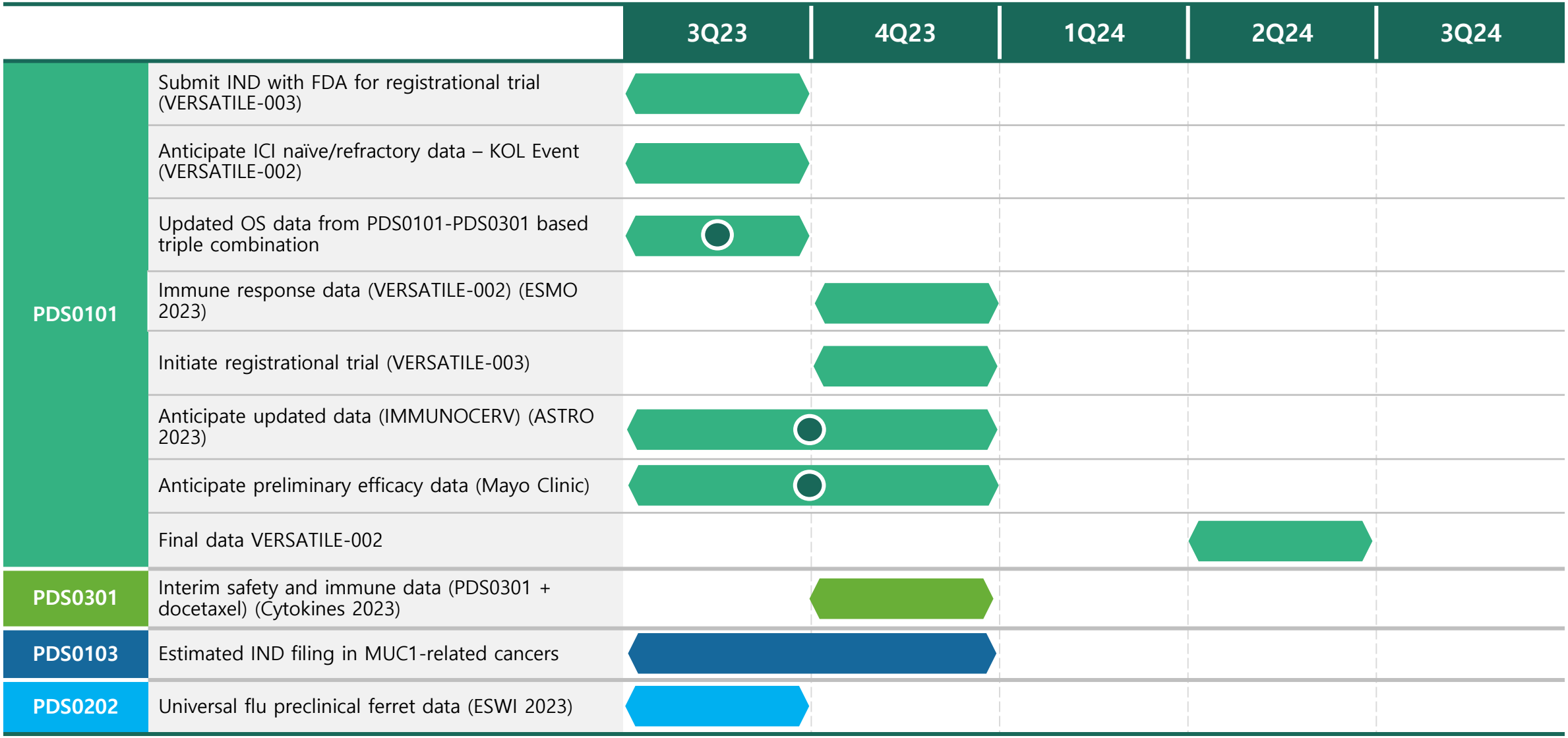
Antibody-Conjugated IL-12 (PDS0301) Regimens

	Candidate/ Study	Indication	Combination	PC	P1	P2	P3	R	Partner(s)
IIT Studies	**PDS0301/ NCI-led Triple Combination**	HPV-positive anal, cervical, head and neck, penile, vaginal, vulvar cancers • **Arm 1:** ICI naive • **Arm 2:** ICI refractory	PDS0101 & ICI						NIH NATIONAL CANCER INSTITUTE
	PDS0301	Advanced Kaposi Sarcoma	Monotherapy						NIH NATIONAL CANCER INSTITUTE
	PDS0301	Metastatic Castration sensitive and Castration Resistant Prostate Cancer	Docetaxel						NIH NATIONAL CANCER INSTITUTE
	PDS0301	Localized High and Intermediate Risk Prostate Cancer	Radiation Therapy						NIH NATIONAL CANCER INSTITUTE
	PDS0301	ICI Refractory HPV-related, colon and small-bowel cancer	HDAC Inhibitor						NIH NATIONAL CANCER INSTITUTE

Partner Co-Funded

Reference: Data on file.

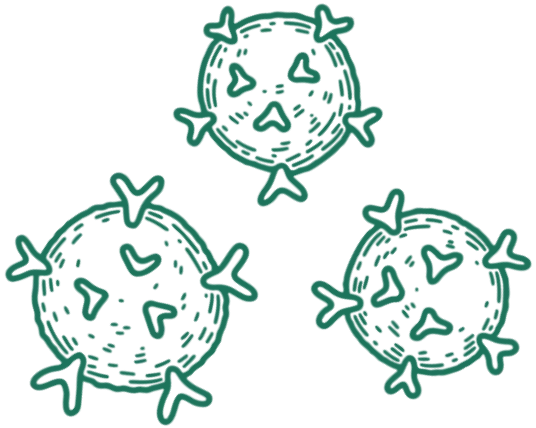
Projected Milestones Through 3Q24



Investigator-initiated trials and data read-outs are outside the control of the Company.

Executive Summary: Positioned for Market Leadership

Company Overview



T cell activating platforms and antibody conjugated immuno-cytokine platform to develop safer, more effective and longer lasting **cancer immunotherapies**

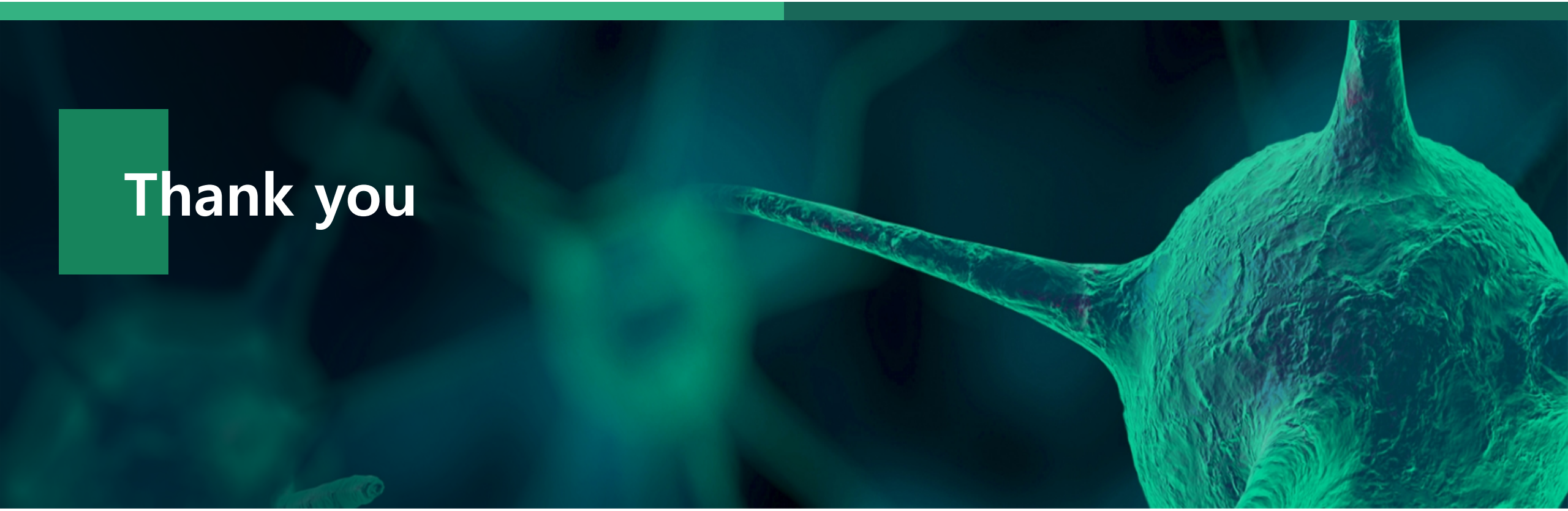
1. PDS0101 to enter **Phase 3 registrational trial** in 2023 to treat recurrent or metastatic, HPV16-positive head and neck squamous cell cancer (HNSCC)

2. **Fast Track Designation**
   PDS0101 addresses large and growing market with significant unmet need

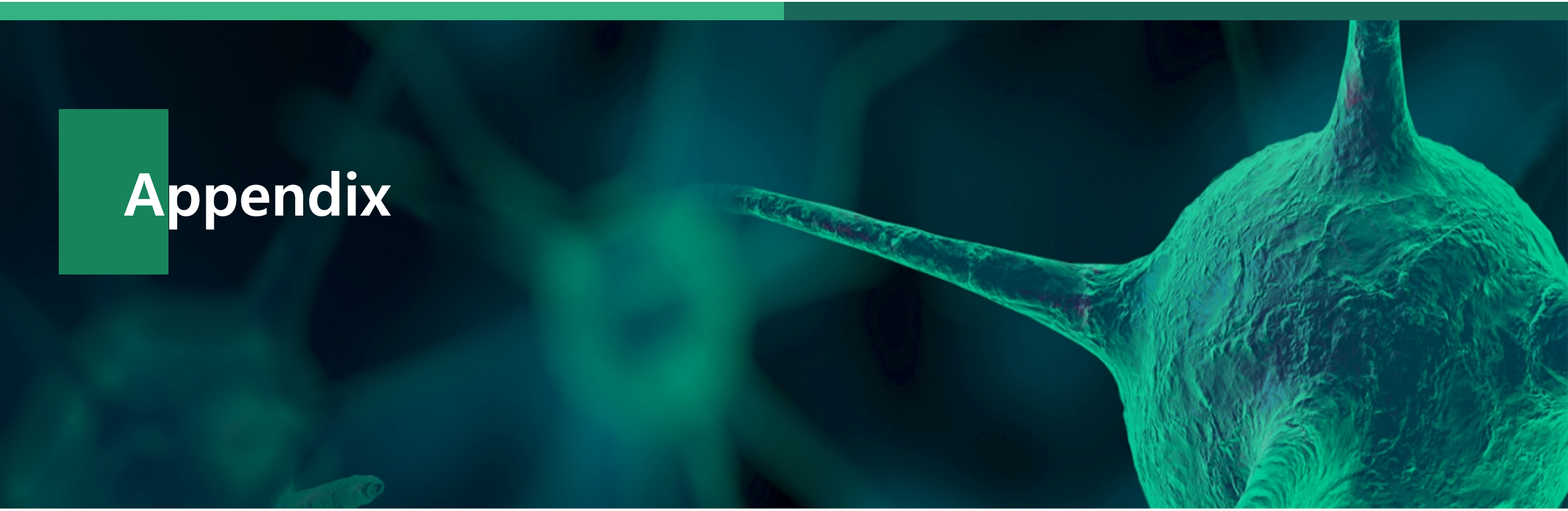
3. **Transformational data** generated with PDS0101 and PDS0301 in multiple Phase 2 clinical studies

4. **Financial:** Cash as of June 30, 2023 - $60.6M cash runway for the next 12 months with initiation of a registrational trial in 2023

Thank you



Appendix



PDS0202: Universal Prevention of Influenza

Universal Influenza Vaccines

National Institute of Allergy and Infectious Diseases

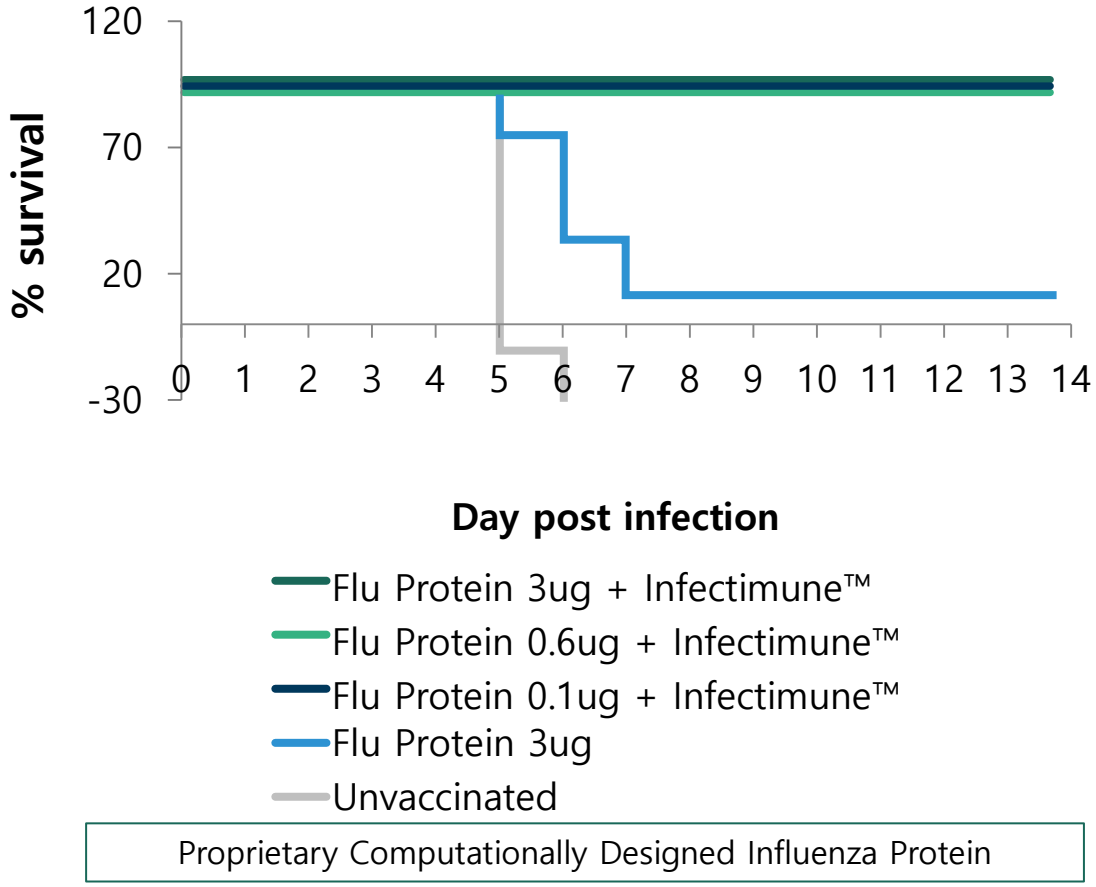
$7 Billion | **Universal Flu Market Opportunity in 2021**

License agreement with University of Georgia for proprietary influenza antigens

Top-line preclinical data announced; effective delivery of flu proteins activate the critical immune signals necessary to generate neutralizing antibody responses to all flu strains tested in animals

Preclinical data presented at the 41st Annual meeting of the American Society Virology Meeting

PDS0202 Provided Full Protection Against Lethal Challenge with H1N1 Pandemic Strain in Preclinical Study



Proprietary Computationally Designed Influenza Protein

Reference: Ross T. and Woodward J. et al. evaluation of the PDS0202 (Infectimune® + COBRA) Universal flu formulation.

Infectimune® Infectious Disease Platform

Several Key Opinion Leaders Involved with PDS Biotech's VERSATILE-002 Head and Neck Cancer Trial

Katharine A. Price, MD
Associate Professor, Oncology
Mayo Clinical
(Presented ASCO data)

Jared Weiss, MD
Section Chief of Thoracic and Head/Neck Oncology, Professor of Medicine
UNC Lineberger Comprehensive Cancer Center
(Lead Investigator)

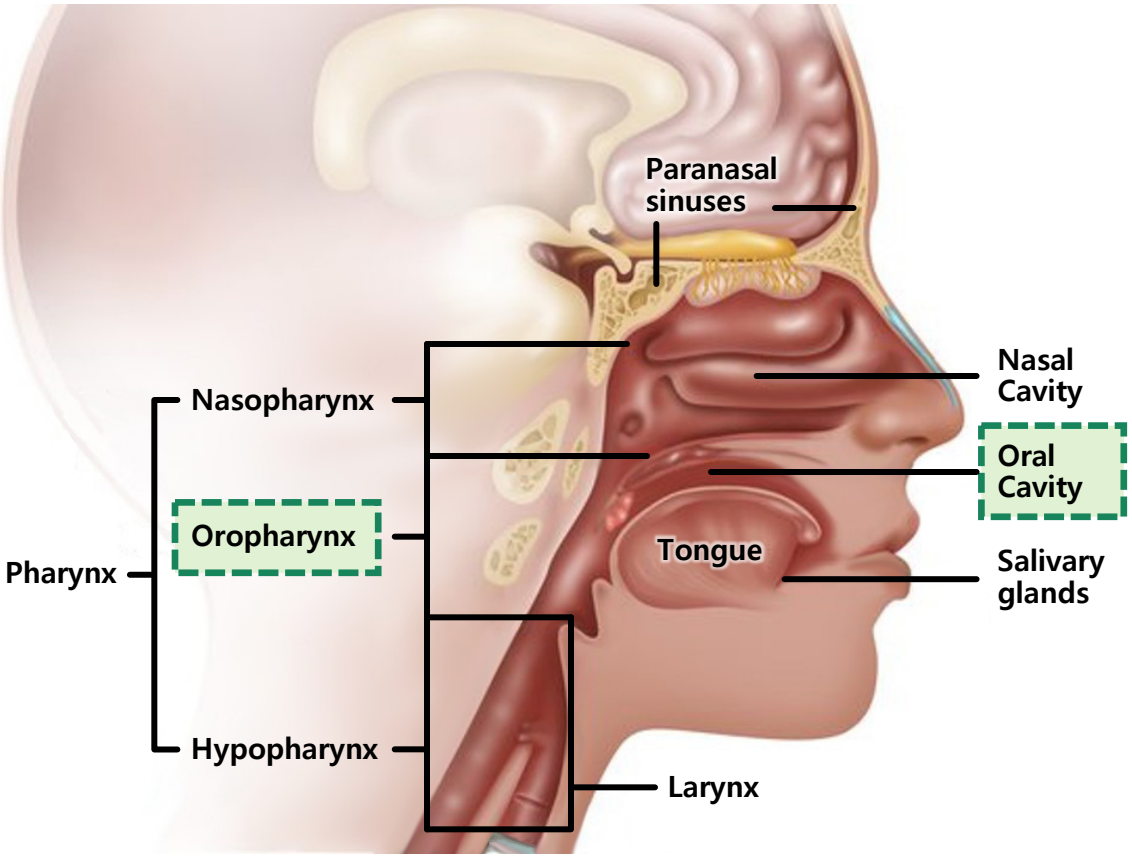
Kevin J. Harrington, MBBS, PhD
Professor in Biological Cancer Therapies
The Institute of Cancer Research, London
(Key investigator on Merck KEYNOTE-048 trial with KEYTRUDA)

John Kaczmar, MD
Associate Professor, Oncology
MUSC Hollings Cancer Center
(Published Article on PDS0101-KEYTRUDA patient)

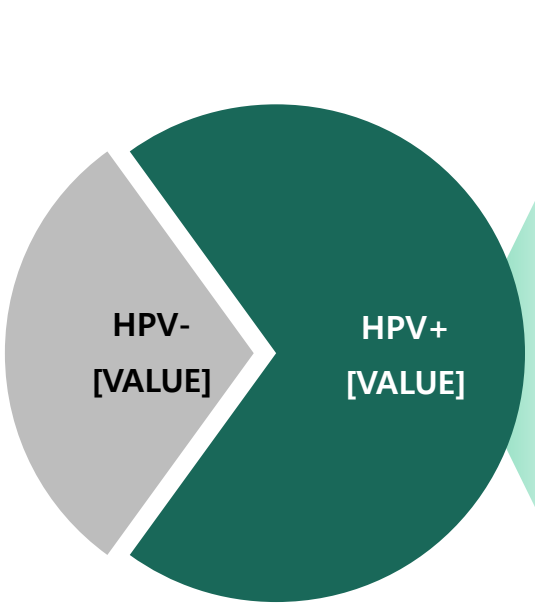
Expanding Evidence of Consistent and Durable PDS0101 Clinical Results Across Multiple Phase 2 Trial Indications

- PDS0101 is an HPV16-targeted immunotherapy
- PDS0101 is providing strong proof of concept data for the Versamune® technology platform
- Efficacy data in >90 patients to date
  - Strong agreement between preclinical and clinical results
  - Versamune® mechanism of action shows clear translation between preclinical and human results
  - Anti-tumor responses and biomarker data show strong correlation across all types of HPV-positive cancer and at all stages of the disease
- Safety data in approximately 120 patients to date
  - Safety data, anti-tumor responses and patient survival suggest that the Versamune® based therapies such as PDS0101 could be ideal candidates for combination oncology treatments

HNSCC is a Devastating Group of Cancers



Oral and Pharyngeal Cancers

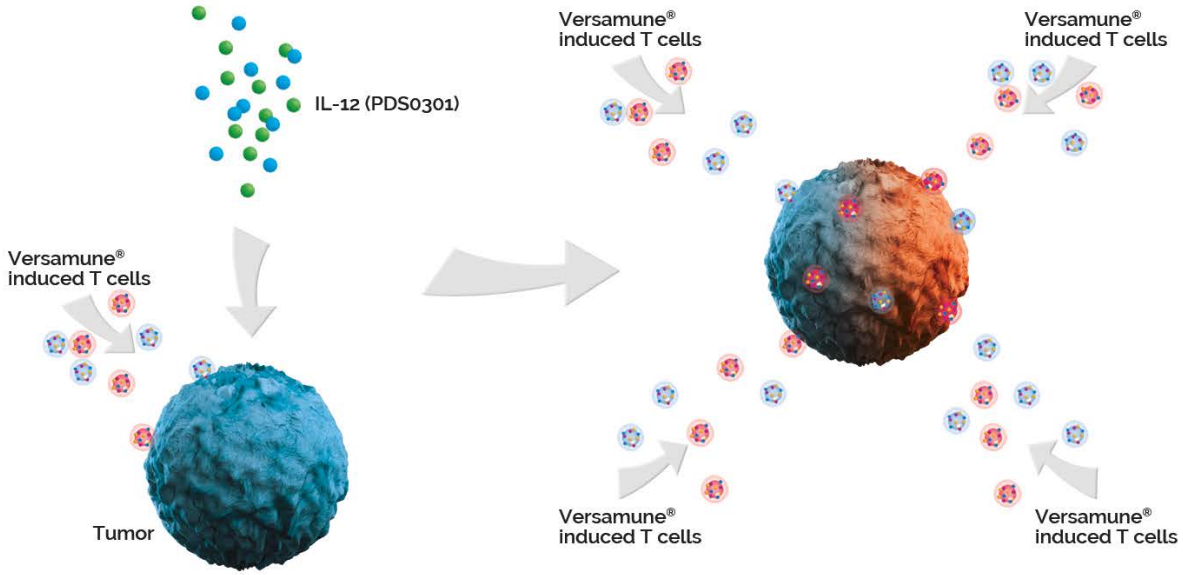


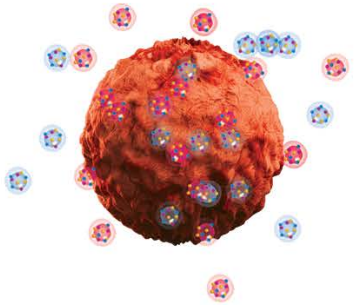
Genotype of *HPV-Positive Oral and Pharyngeal Cancer

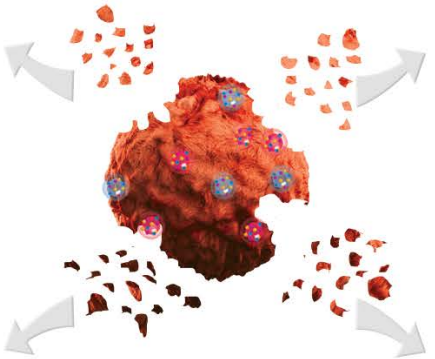
Reference: Noseyaba et al. 2018. Cancer. Suicide Risk Among Cancer Survivors: Head and Neck Versus Other Cancers
https://virologyj.biomedcentral.com/articles/10.1186/s12985-021-01688-9
https://www.cdc.gov/cancer/hpv/basic_info/hpv_oropharyngeal.html
*Human Papillomavirus

Antibody-Conjugated IL-12: PDS0301 Targets Tumors and Enhances T Cell Infiltration and Proliferation in the Tumor

Injection Site	Non-Immunogenic (Cold Tumor)	Immunogenic (Hot Tumor)	Tumor Site







1 PDS0301 travels direct to tumor	**2** Increased tumor inflammation from PDS0301	**3** PDS0301 increases T cell infiltration and expansion in tumor	**4** CD8 T cells kill tumor cells

Demographics of the ITT (Safety) and mITT (Efficacy) Populations

Demographics and Baseline Characteristics

Demographic or Baseline Characteristic	ITT Population (N=48)	mITT Population (N=34)
Age, Median (Min, Max)	62.5 (45, 83)	63.5 (46, 83)
Sex, n (%)		
Male	45 (93.8)	32 (94.1)
Female	3 (6.3)	2 (5.9)
Race, n (%)		
American Indian or Alaska Native	0	0
Asian	1 (2.1)	0
Black or African American	1 (2.1)	0
Pacific Islander	0	0
White	45 (93.8)	33 (97.1)
Multiple	0	0
Other	1 (2.1)	1 (2.9)
ECOG, n (%)		
0	30 (62.5)	20 (58.8)
1	18 (37.5)	14 (41.2)
CPS, n (%)*		
<1	1 (2.1)	0
1-19	27 (56.3)	17 (50.0)
≥20	20 (41.7)	17 (50.0)

Summary of Exposure

Exposure	ITT Population (N=48)
PDS0101 doses, Median (Min, Max)	4.0 (1, 5)
PDS0101 doses, n, (%)	
≥1 dose	46 (95.8)
≥2 doses	40 (83.3)
≥3 doses	36 (75.0)
≥4 doses	27 (56.3)
5 doses	11 (22.9)
Pembrolizumab doses, Median (Min, Max)	5.0 (1, 29)
Pembrolizumab doses, n (%)	
≥1 dose	48 (100)
≥2 doses	40 (83.3)
≥3 doses	36 (75.0)
≥4 doses	28 (58.3)
≥5 doses	27 (56.3)
≥6 doses	23 (47.9)
≥7 doses	20 (41.7)
≥8 doses	16 (33.3)
≥9 doses	15 (31.3)
≥10 doses	13 (27.1)
Duration of treatment (months), Median (Min, Max)	3.5 (0.0, 19.5)

PDS0101: A Novel Investigational HPV-Targeted Immunotherapy

PDS0101 is given by subcutaneous injection and stimulates a potent targeted T cell attack against HPV-positive cancers

Interim VERSATILE-002 data suggests PDS0101 generates clinically effective immune responses

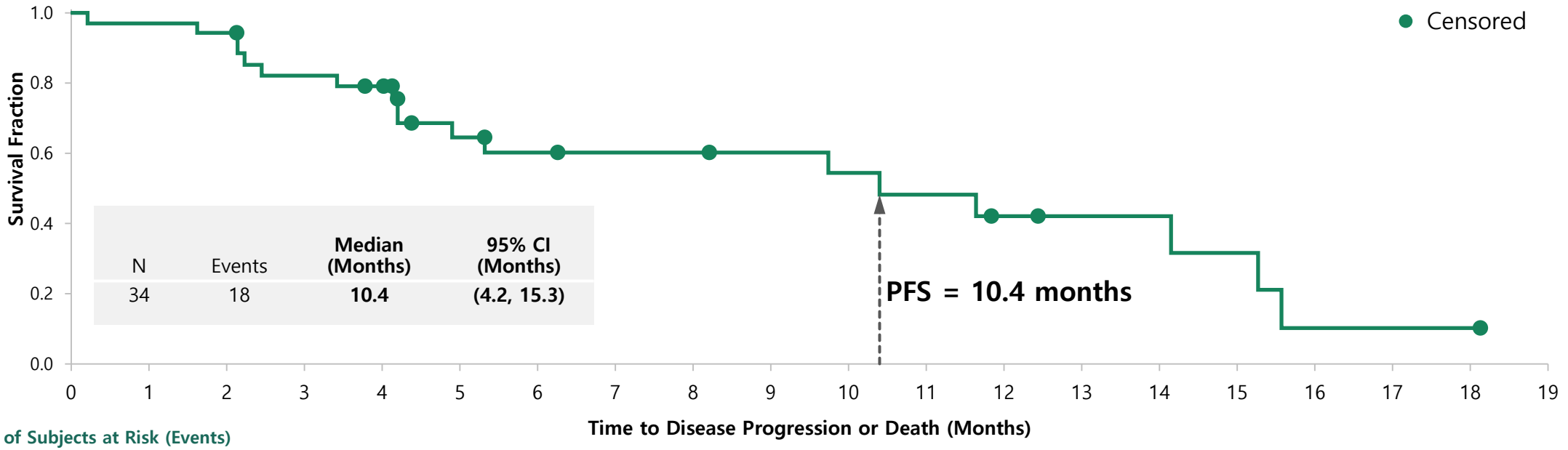
PDS0101 with KEYTRUDA® demonstrates significant disease control by shrinking tumors, delaying disease progression and prolonging survival

The combination of PDS0101 with KEYTRUDA® has demonstrated a favorable safety profile to date

Compelling Durability of the Anti-Tumor Response

Demonstrated median PFS of 10.4 months; published results of 2-3 months for approved immune checkpoint inhibitors*

Progressive Free Survival (PFS) per Investigator Assessment (mITT Population)



Number of Subjects at Risk (Events)

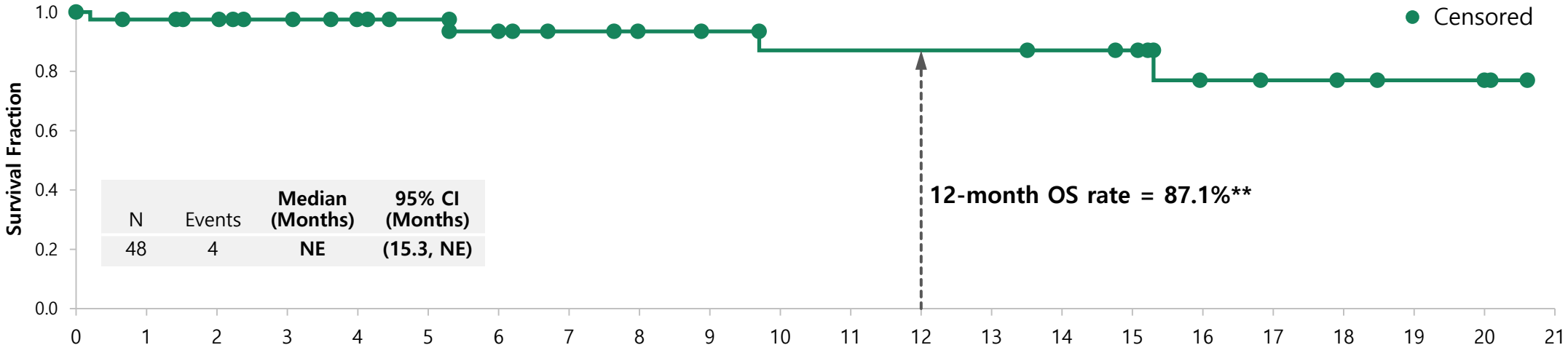
CPI Naïve	34 (0)	33 (1)	32 (2)	27 (6)	25 (7)	16 (11)	14 (12)	12 (12)	12 (12)	10 (12)	9 (13)	8 (14)	6 (15)	4 (15)	4 (15)	3 (16)	1 (18)	1 (18)	1 (18)	0 (18)

* No control or comparative studies have been conducted between immune checkpoint inhibitors and PDS0101; Ferris R.L., Nivolumab for Recurrent Squamous-Cell Carcinoma of the Head and Neck; N Engl J Med 2016; 375:1856-1867; Burtness B et al., Pembrolizumab alone or with chemotherapy versus cetuximab with chemotherapy for recurrent or metastatic squamous cell carcinoma of the head and neck (KEYNOTE- 048): a randomized, open-label phase 3 study; Lancet 2019; 394(10212):1915-1928https://www.opdivo.com/head-and-neck-cancerhttps://www.keytruda.com/head-and-neck-cancer/keytruda-clinical-trials/

Promising Survival Benefit

Demonstrated 12-month OS rate of 87.1%; published results of 35-50% for approved immune checkpoint inhibitors*

Overall Survival (OS) (ITT Population)



Number of Subjects at Risk (Events)

CPI Naïve	47 (0)	41 (1)	36 (1)	31 (1)	29 (1)	26 (1)	23 (2)	19 (2)	17 (2)	16 (2)	13 (3)	13 (3)	13 (3)	13 (3)	12 (3)	11 (3)	6 (4)	5 (4)	4 (4)	3 (4)	2 (4)	0 (4)

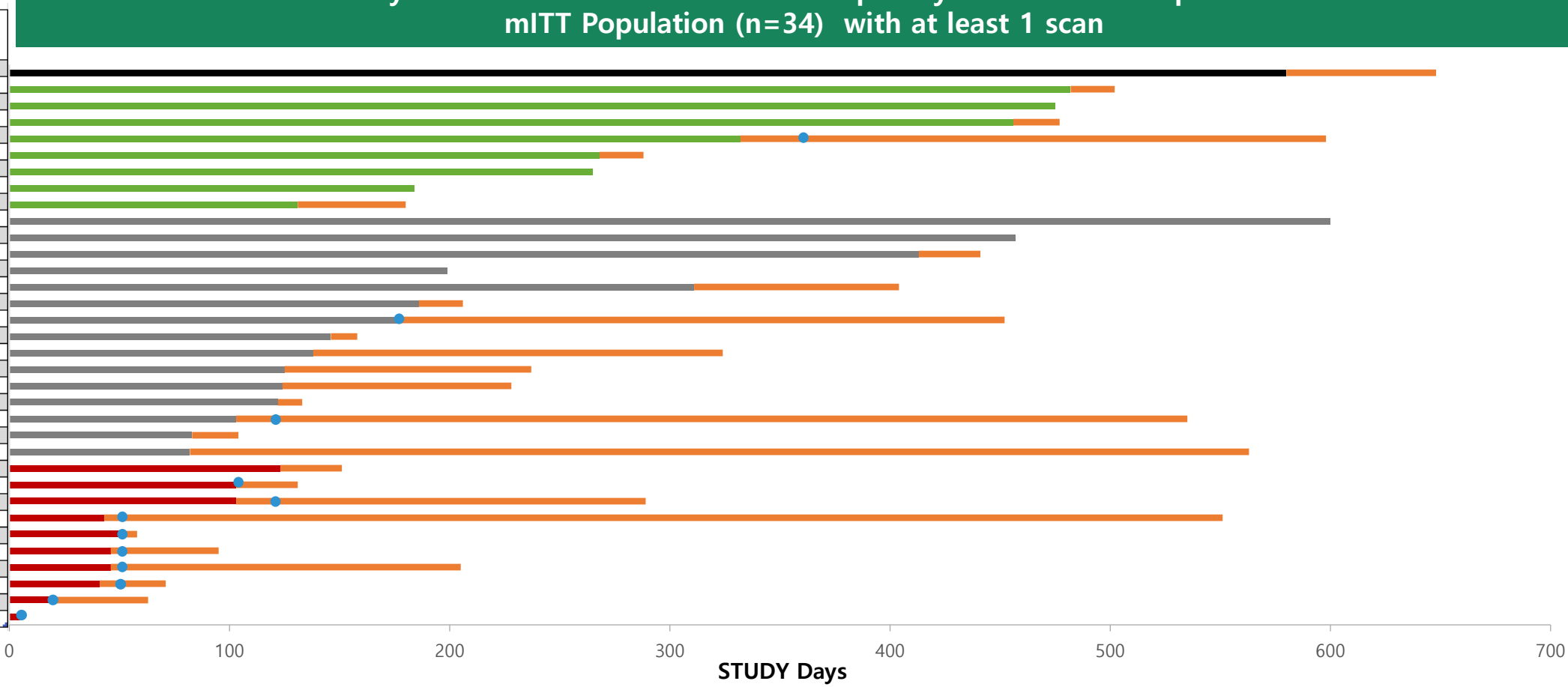
*No control or comparative studies have been conducted between immune checkpoint inhibitors and PDS0101; Ferris R.L., Nivolumab for Recurrent Squamous-Cell Carcinoma of the Head and Neck; N Engl J Med 2016; 375:1856-1867; Burtness B et al., Pembrolizumab alone or with chemotherapy versus cetuximab with chemotherapy for recurrent or metastatic squamous cell carcinoma of the head and neck (KEYNOTE- 048): a randomized, open-label phase 3 study; Lancet 2019; 394(10212):1915-1928https://www.opdivo.com/head-and-neck-cancerhttps://www.keytruda.com/head-and-neck-cancer/keytruda-clinical-trials/

**All subjects either alive, lost to follow up, or who have left the trial are censored at the last known date of contact, or at Day 1, if they do not have any post-baseline visits or assessments. The 12-month OS rate for the mITT population, excluding the 14 most recently enrolled patients, is 86.5%.

Several Patients Approaching Two Years of Survival

Days on Treatment and Survival Grouped by Best Overall Response
mITT Population (n=34) with at least 1 scan

Patient Status	Reason for "Coming Off Study Tx"	Subject ID
On tx		HH
On tx		GG
On tx		FF
On tx		EE
Off tx/alive	PD	DD
On tx		CC
On tx		BB
On tx		AA
Off tx/alive	Non-Compliance	Z
On tx		Y
On tx		X
Off tx/alive	PD	W
On tx		V
Off tx/alive	Decision then P	U
On tx		T
Off tx/alive	PD	S
Off tx /Death	AE/Death	R
Off tx/alive	AE	Q
Off tx/alive	PI Decision	P
Off tx/alive	PI Decision	O
Off tx/alive	PI Decision	N
Off tx/alive	PD	M
On tx		L
Off tx/alive	PD	K
Off tx/alive	PI Decision /PD	J
Off tx/alive	PD	I
Off tx/alive	PD	H
Off tx/alive	PD	G
Off tx/alive	PD	F
Off tx/Death	PD/Death	E
Off tx/alive	PD	D
Off tx/alive	PD	C
Off tx/alive	PD	B
Off tx / death	AE/death	A



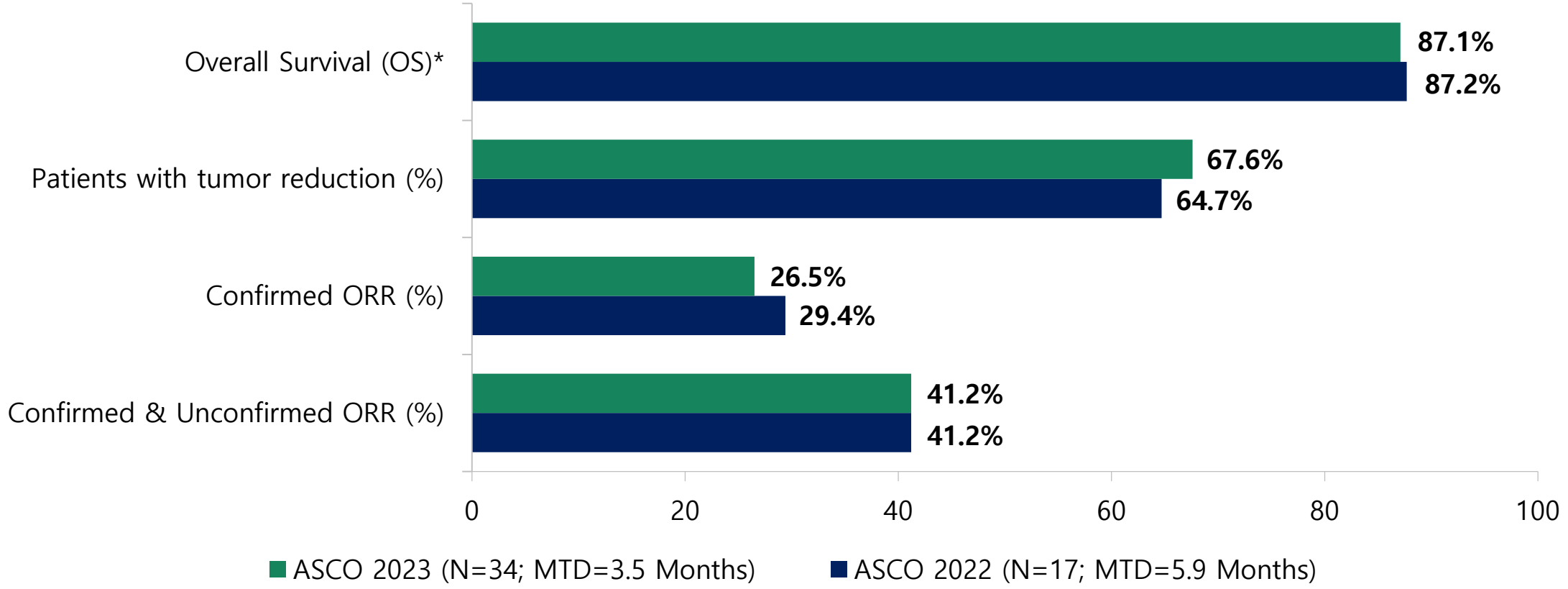
Blue Dot: Timing of last scan demonstrating PD; Red Bars – PD, Grey Bars – SD, Green Bars – PR, Black Bar – CR, Orange Bars – survival period through last known date alive

No control or comparative studies have been conducted between immune checkpoint inhibitors and PDS0101

Tumor Reduction, ORR and OS Remain Consistent

Comparison: ASCO 2022 & 2023 PDS0101 + KEYTRUDA® Clinical Results

ASCO 2022 vs ASCO 2023 Data



*9-Month OS in 2022; 12-Month OS in 2023

Antibody-Conjugated IL-12 (PDS0301)

- A novel investigational tumor-targeting Interleukin 12 (IL-12) that enhances the proliferation, potency and longevity of T cells in the tumor microenvironment
- Together with Versamune® based immunotherapies PDS0301 works synergistically to promote a targeted T cell attack against cancers
- PDS0301 is given by a simple subcutaneous injection
- Clinical data suggest the addition of PDS0301 to Versamune® based immunotherapies demonstrate disease control by shrinking tumors and prolonging survival in recurrent or metastatic cancers with poor survival prognosis