Corporate Presentation

January 2021

Forward-looking Statement Disclaimer

This presentation and accompanying webinar contain forward-looking information under applicable securities law. All information that addresses activities or developments that we expect to occur in the future is forward-looking information. Forward-looking statements are based on the estimates and opinions of management on the date the statements are made. In the presentation, such forward-looking statements include, but are not limited to, statements regarding the FDA potentially granting accelerated regulatory approval of DPX-Survivac and the timing of expected results from other DPX-Survivac's studies with other tumor types. However, they should not be regarded as a representation that any of the plans will be achieved. Actual results may differ materially from those set forth in this presentation due to risks affecting the Corporation, including access to capital, the successful design and completion of clinical trials and the receipt and timely receipt of all regulatory approvals. IMV Inc. assumes no responsibility to update forward-looking statements in this presentation except as required by law. These forward-looking statements involve known and unknown risks and uncertainties and those risks and uncertainties include, but are not limited to, our ability to access capital, the successful and timely completion of clinical trials and studies, the receipt of all regulatory approvals and other risks detailed from time to time in our ongoing quarterly filings and annual information form Investors are cautioned not to rely on these forward-looking statements and are encouraged to read IMV's continuous disclosure documents, including its current annual information form, as well as its audited annual consolidated financial statements which are available on SEDAR at www.sedar.com and on EDGAR at www.sec.gov/edgar.

Developing a New Class of Immunotherapies in Oncology and Infectious Disease

We are dedicated to making immunotherapy more effective, more broadly applicable, and more widely available to people facing cancer and other serious diseases.

TICKER

IMV (Nasdaq & TSX)

MARKET CAP (Jan.26)

~ $US 238 M / ~ $CAD 303 M

Cash and cash equiv. (Sept. 30): 54.7 M CDN$ / 40.9 M US $

OUTSTANDING SHARES (Dec.31)

Basic: 67.1M
Fully diluted: 71.6M

CONTACT
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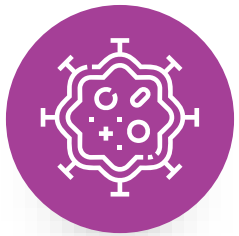
Investment Highlights

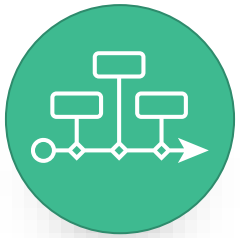
DPX™ delivery platform to create a novel class of immunotherapies

Unique mechanism of action that generates targeted and sustained stimulation of immune system
Immune cell activation that can be maintained over an extended period with limited side effects
Clinically-demonstrated activity in solid / hematologic cancers as well as infectious diseases



DPX-Survivac, lead oncology program focused on unmet medical needs

Demonstrated prolonged clinical benefit and tumor regression in solid and hematologic* cancers
Excellent safety profile across all clinical Phase 1 and 2 studies (N=350)
Patient selection biomarker in DLBCL identified



Milestones

Next clinical study design in DLBCL (Q1 2021)
First patient in DLBCL trial (Q2 2021)
Basket trial in multiple solid tumors in combination with Keytruda (Q1 2021)

* Clinical benefit in Heme malignancies demonstrated in combination with pembrolizumab

Leadership Team with a Strong Track Record in Drug Development

Frederic Ors, MSc, MBA
Chief Executive Officer

medicago

université PARIS DIDEROT PARIS 7

Pierre Labbé, CPA
Chief Financial Officer

medicago

LeddarTech

Andrew Hall, MSc
Chief Business Officer

Celgene

MERCK

Joanne Schindler, DVM, MD
Chief Medical Officer

H3 BIOMEDICINE

NOVARTIS

DPX™ Has Important Commercial Advantages

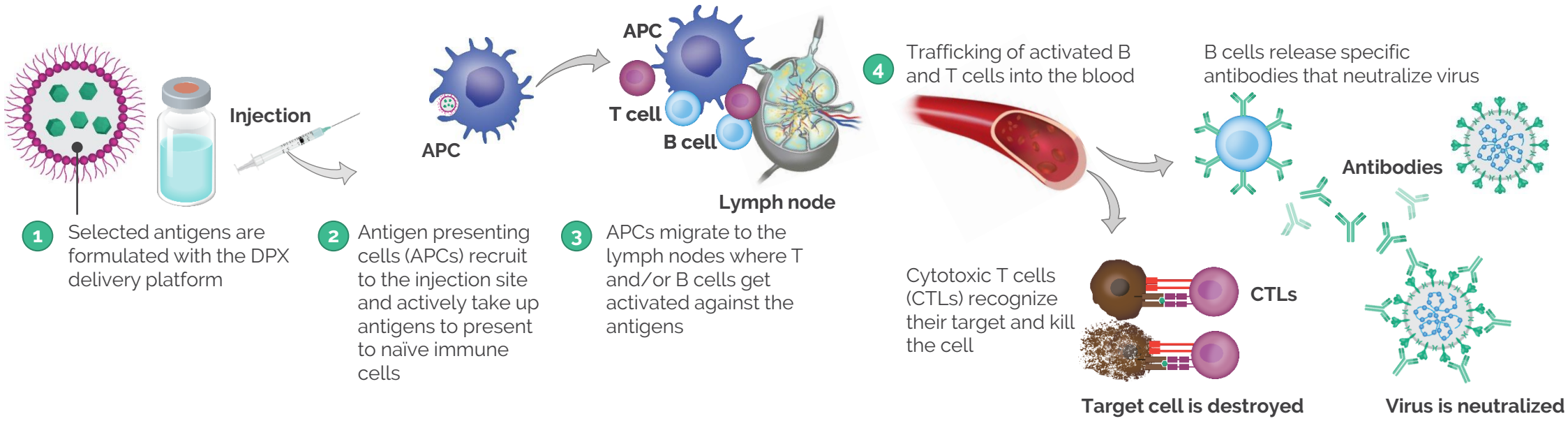
Lipid nanoparticle technology

- Fully synthetic and easy to manufacture
- Can accommodate hydrophilic and hydrophobic compounds
- Lyophilized and reconstituted in lipids in convenient low mL doses
- Subcutaneous injection for simple in office administration
- Long term stability (3 years)
- Low cost of goods scalable manufacturing

DPX™ Technology Induces Targeted and Sustained Immune Response

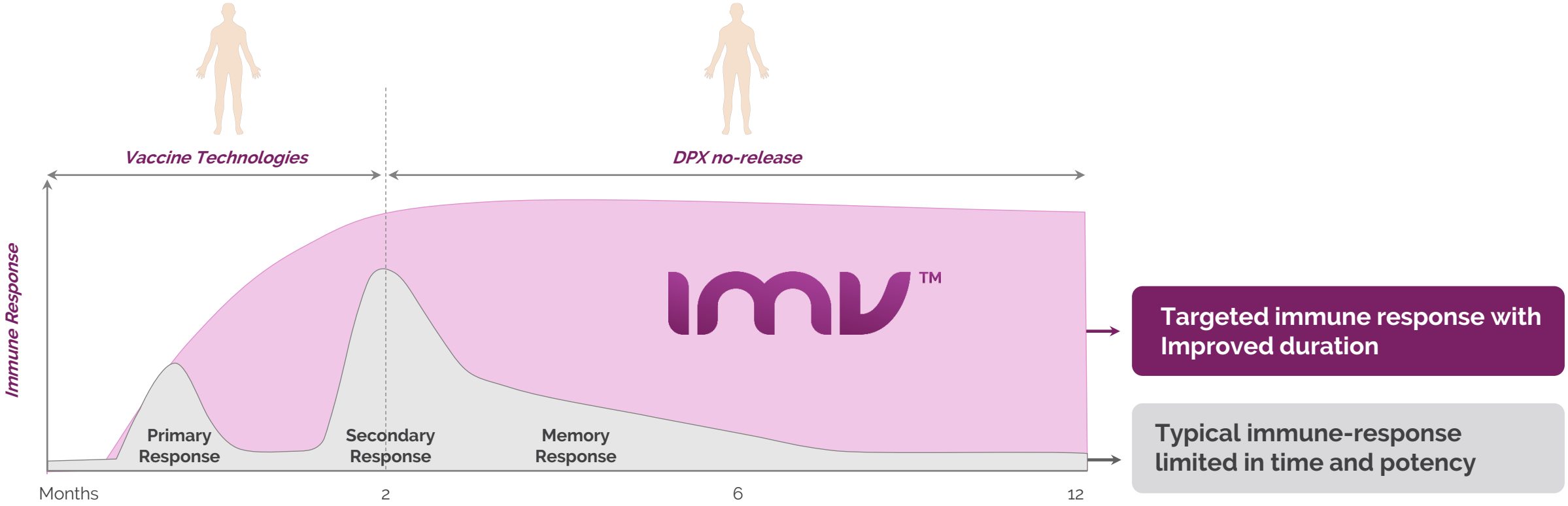
DPX™ delivery platform has a unique "no release" mechanism of action

- Unique lipid-based delivery platform
- The formulation does not release components at the injection site, allowing antigens to continuously interact with and stimulate the immune system over an extended period of time.
- Prolonged exposure by safely increasing the immune system's exposure to practically any antigen
- Versatility: can incorporate broad set of antigens, using peptides to activate T cells



Continuous Stimulation of Immune System Over Extended Period

- DPX™ extended delivery into immune cells enables highly targeted T and B cell therapies against cancer cells or pathogens
- Gradual immune system stimulation that can be maintained over an extended period, with limited side effects
- Opens way to a next generation of precision immunotherapy with potential for increased safety, efficacy and ease of care



Immunotherapy Challenges are Overcome by DPX Technology

Tolerability

Therapeutic exposure is limited to the injection site. Selective uptake by Antigen Presenting Cells (APCs) eliminates off target toxicity resulting in improved tolerability

Durability

Prolonged and protected peptide exposure results in sustained T-cell activation and proven durable clinical response

Patient Access

Infrequent subcutaneous injections.

Off-the-shelf technology permits immediate treatment post-diagnosis

Manufacturing Costs

Fully synthetic and optimized low-cost manufacturing results in a stable (up to three years) and scalable manufacturing process

Late Stage Clinical Pipeline with Multiple Pending Catalysts

	Product (target)	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Sponsor	Collaborators
Oncology	DPX-Survivac (Survivin)	Ovarian					IMV	
		DLBCL			Combination with Keytruda®		Sunnybrook Research Institute	MERCK
		Basket Trial: Lung (NSCLC), Bladder, Liver, Ovarian, MSI-H			Combination with Keytruda®		IMV	MERCK
	DPX-SurMAGE (Survivin + MAGE A9)	Bladder					IMV	CHU de Québec Université Laval
	DPX-BRAF/DPX-KRAS	Multiple indications					IMV	The Wistar Institute
Infectious Disease	DPX-RSV (SheA)	Respiratory Syncytial Virus (RSV)					IMV	CIRN, Canadian Center for Vaccinology
	DPX-COVID-19 (Spike)	COVID-19					IMV	CIRN, Canadian Center for Vaccinology

DPX-Survivac

DPX-Survivac is the first of our T cell activating immunotherapies. It combines the power of our proprietary DPX Platform with the cancer antigen survivin. By activating survivin-specific killer T cells, DPX-Survivac promotes the destruction of cancer cells and disrupts the fundamental processes of cancer cell reproduction and survival.

Survivin is Essential for the Biology of Cancer

- Survivin is expressed in all 60 human tumor lines (NCI)
- Confers resistance to chemotherapy and radiation
- Biomarker of poor patient prognosis

- Promotes cell proliferation
- Inhibits cell death
- Alters cancer metabolism
- Promotes angiogenesis and adhesion
- Correlates with aggressive disease
- Total protein upregulated under hypoxia
- Depressed when p53 defective

Relapsed Refractory DLBCL

Diffuse Large B Cell Lymphoma (DLBCL) is the most common and aggressive form of lymphoma

- Most common type of Non-Hodgkin lymphomas (NHL). Accounts for 30%-35% of all cases of adult NHL.
- 27,000 new cases/year in the US
- 35–40% of patients will exhibit primary refractory disease or relapse following an initial response to therapy and will have a very poor outcome
- Median overall survival is 4.4 months for patients who fail salvage regimens

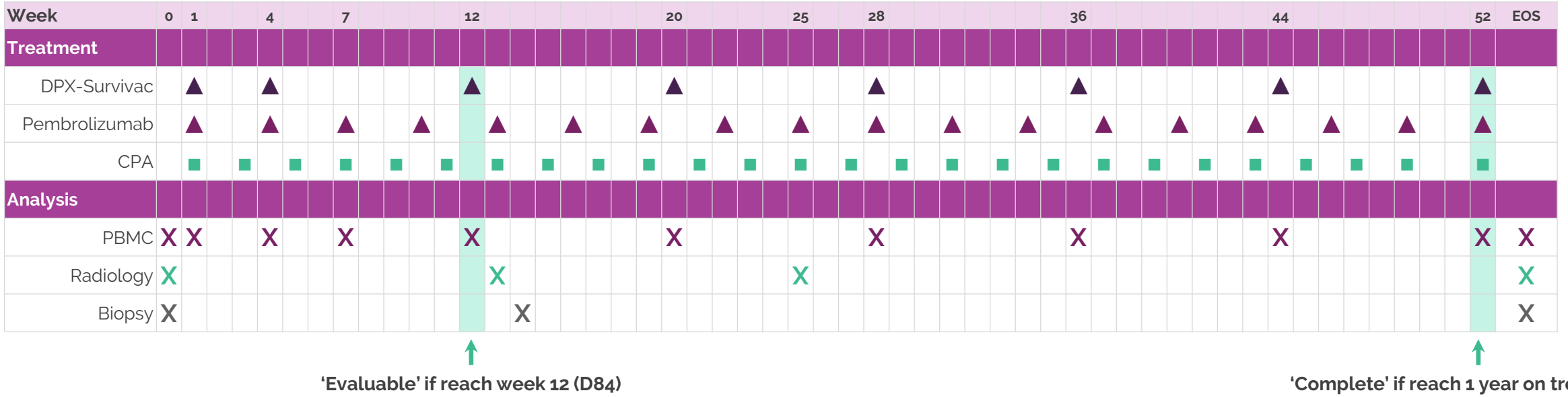
High unmet medical need for non-eligible ASCT or non-eligible/CAR-T failure population

SPiReL Trial in Relapsed/Refractory DLBCL

Enrolled subjects are treated for 1 year or until confirmed PD

- DPX-Survivac 0.5 mL on study day 7 and 28; then 0.1 mL every 8 weeks
- Pembrolizumab 200 mg every 3 weeks
- Intermittent, low dose cyclophosphamide (CPA: 50 mg BID, 1 wk on, 1 wk off)

Current Status: accrual ongoing; 24 enrolled; 3 ongoing



DPX-Survivac/Pembrolizumab Treatment Success in DLBCL

90.9% Clinical Benefit Observed in Biomarker Positive Population

Patient selection biomarker identified

Program Death Ligand 1 (PD-L1) positive

18 patients with pre-treatment samples

86% (6/7) of subjects with Objective Response Rate (ORR) (3 CR, and 3 PR) in PD-L1 positive

0% (0/11) ORR in PD-L1 negative

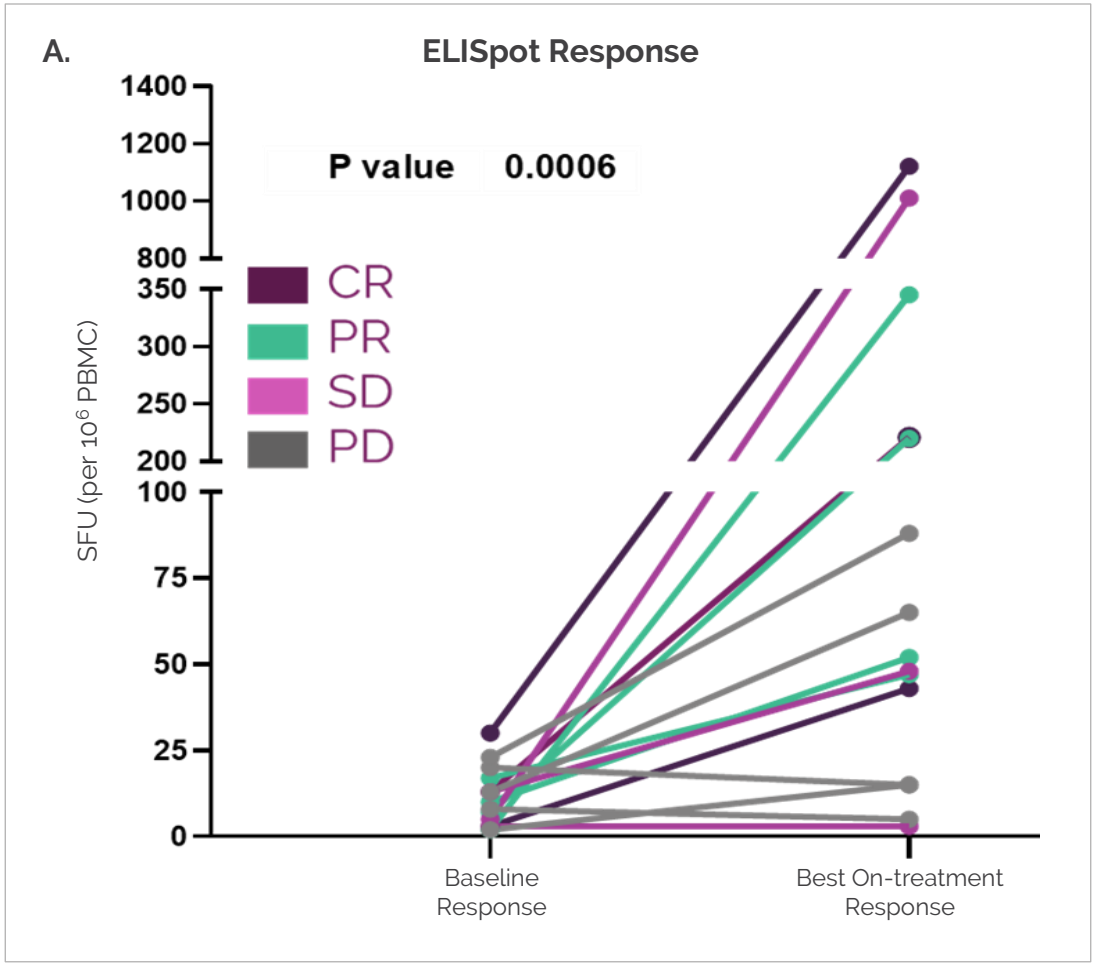
90.9% of evaluable subjects showed clinical benefit with minimal toxicity (most grade 1 and 2 were injection-site related adverse events)

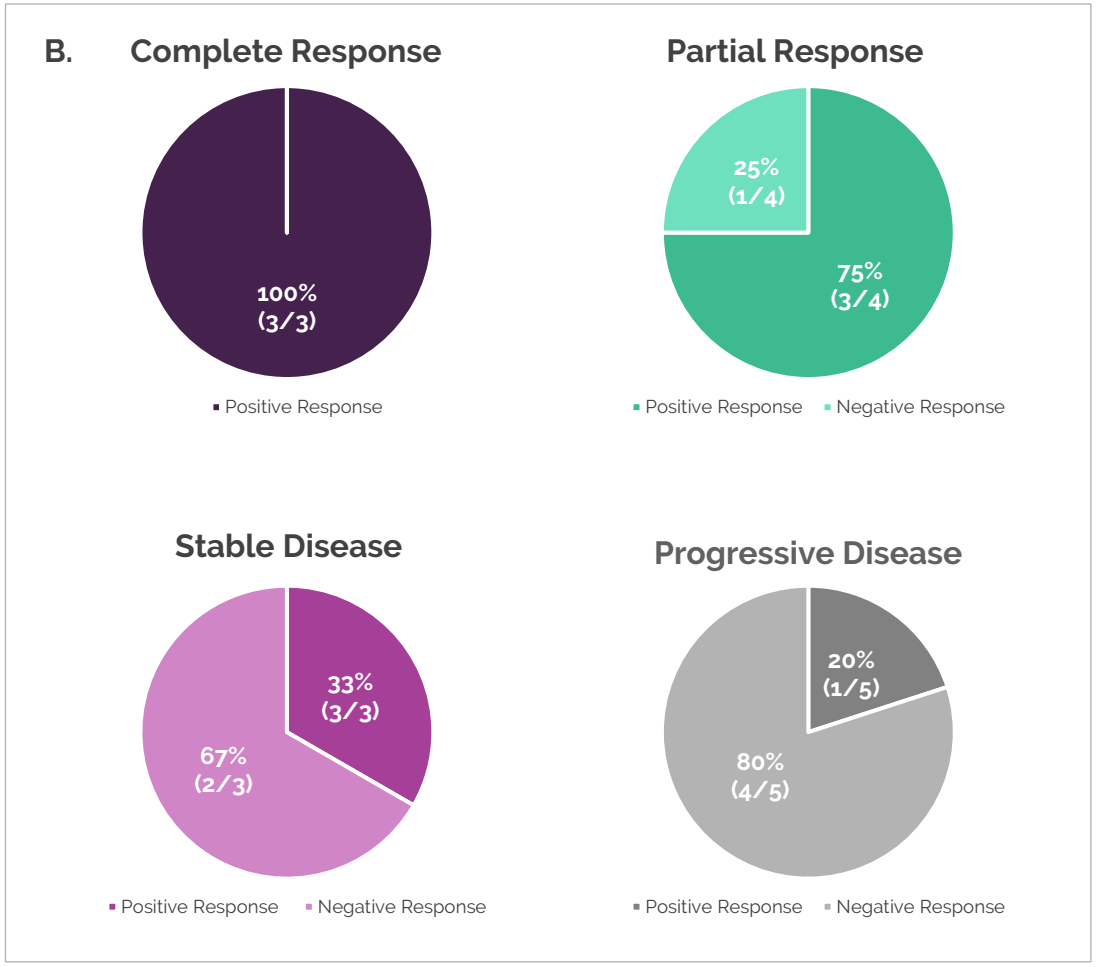
The Company plans to engage with the U.S. Food and Drug Administration (FDA) to identify the best path toward registration and discuss the design of a trial that will evaluate the efficacy in PD-L1 positive patients in a larger population,

Clinical outcomes for the SPiReL trial were presented at the American Society of Hematology (ASH) annual meeting on December 3, 2020

Survivin-specific T cell response confirm DPX-Survivac MOA

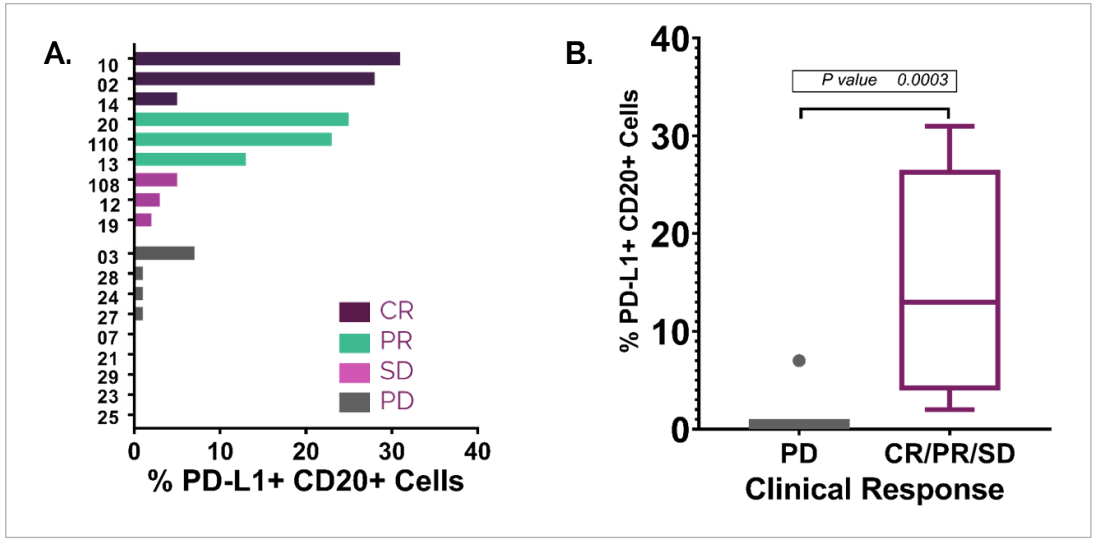
DPX-Survivac Induced Survivin-specific T cell Responses by ELISpot





Clinical Effect in PD-L1 Positive Patients was Profound

Analyses of Baseline PD-L1 Expression and Clinical Response



Baseline tumor available and PD-L1 analysis completed for 18 subjects:

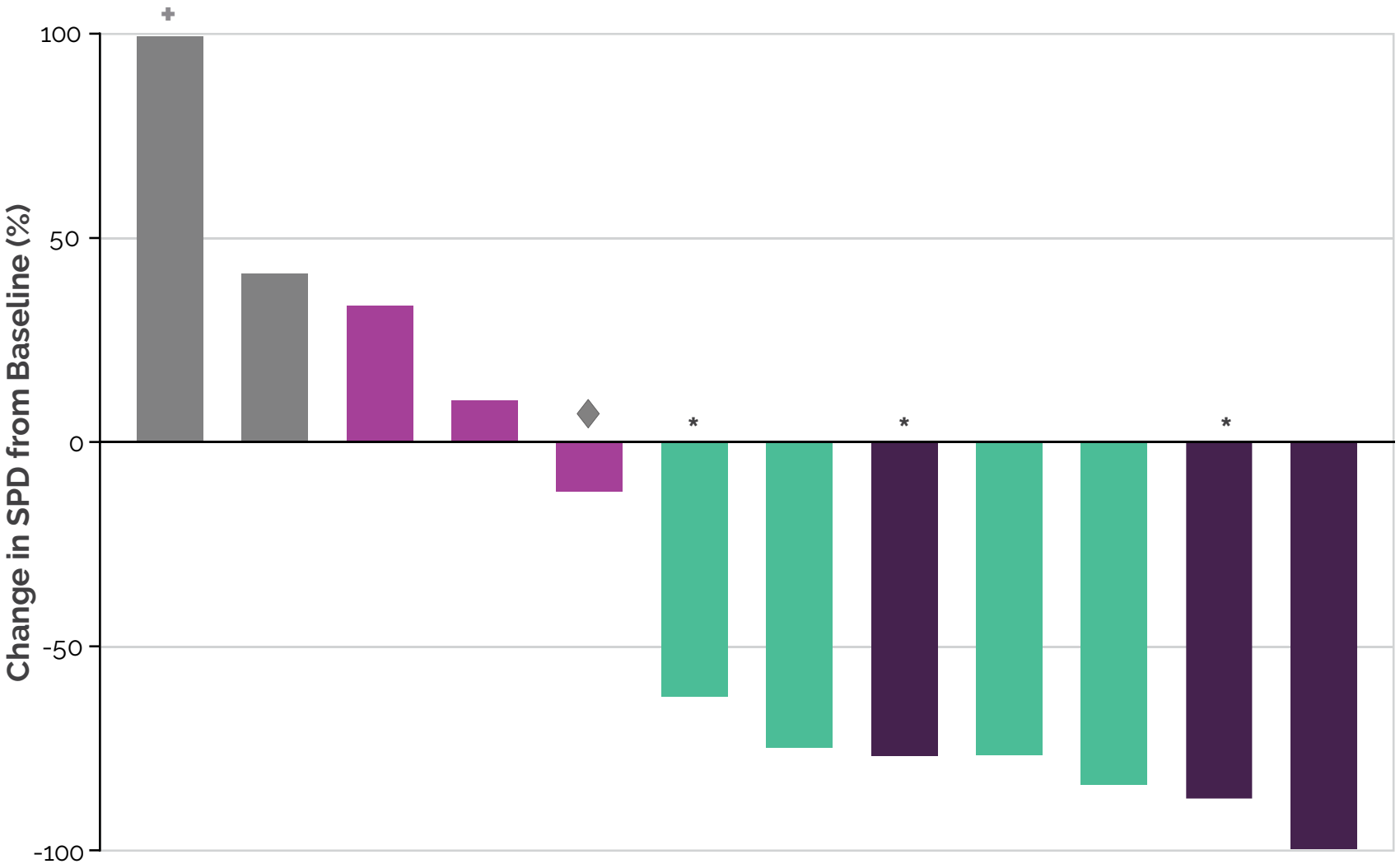
PD-L1 positive (N=7)
ORR = 86%

PD-L1 negative (N=11)
ORR=0%

PD-L1 expression with observed clinical responses. (A and B) represents percentage of PD-L1+ CD20+ cells scored in the tumor region and categorized by observed clinical responses. (C and D) represents percentage of total PD-L1+ cells scored in the tumor region and categorized by observed clinical responses. PD-L1 expression was assessed using mIHC analyses (Akoya Biosciences, Opal Panel) using CST #E1L3N antibody. PD-L1 expression across different clinical response groups were compared using two-tailed Mann-Whitney test

Significant Activity Observed Beyond that Expected from I/O Single Agents

SPiReL: Best Radiologic Response (irRC)



Promising activity observed in an older population after multiple lines of therapy

Av. patient age - 75 years

Av no. prev. Lines of therapy - 5

Response observed in non-GCB

- Complete response
- Partial response
- Stable disease
- Progressive disease
- Subject ongoing
- * Subject completed study (1 year on study)
- + Change > 100%

† To be declared "evaluable", subjects must have received 4 doses of pembro and 3 doses of DPX-Survivac (D84)

Recurrent Ovarian Cancer

Fifth most common cause of cancer mortality in women 239,000 cases and 152,000 deaths worldwide each year. Median age at diagnosis is 63.

Almost all patients relapse and eventually become resistant to platinum-based therapy (70% of patients relapse within 3 years)

Standard of care for recurrent platinum resistant ovarian cancer Single-agent chemotherapy (doxorubicin, paclitaxel, or topotecan)

- 12% objective response rate (ORR)
- 3 to 4.4 months Progression Free Survival (PFS)

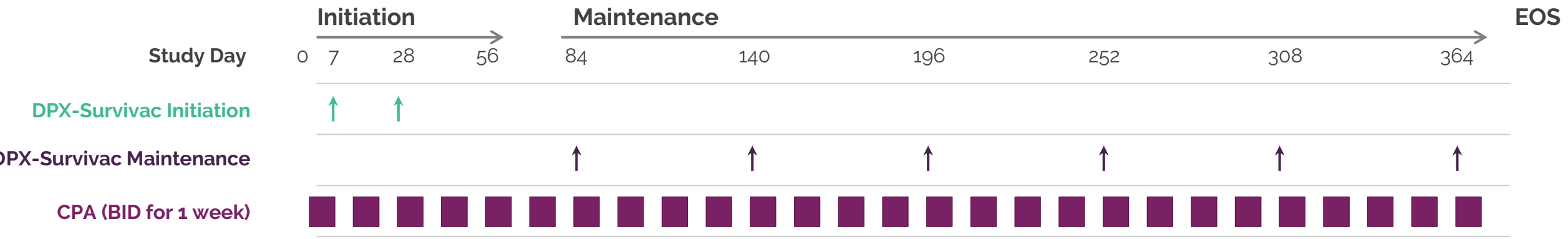
High unmet medical need

- Platinum resistant and non eligible to chemo, elderly population
- **No immunotherapy approved**

K Moore et al., ESMO 2019; Pujade-Lauraine et al., SGO 2019; Gaillard et al., ESMO 2018; SmartAnalyst report 2019. Garon et al., Lancet 2014; Rittmeyer A, et al. Lancet. 2017; Borghaei H, et al. N Engl J Med. 2015; SmartAnalyst report 2019

DeCidE[1] – DPX-Survivac/CPA - Study Design

DPX-Survivac Monotherapy

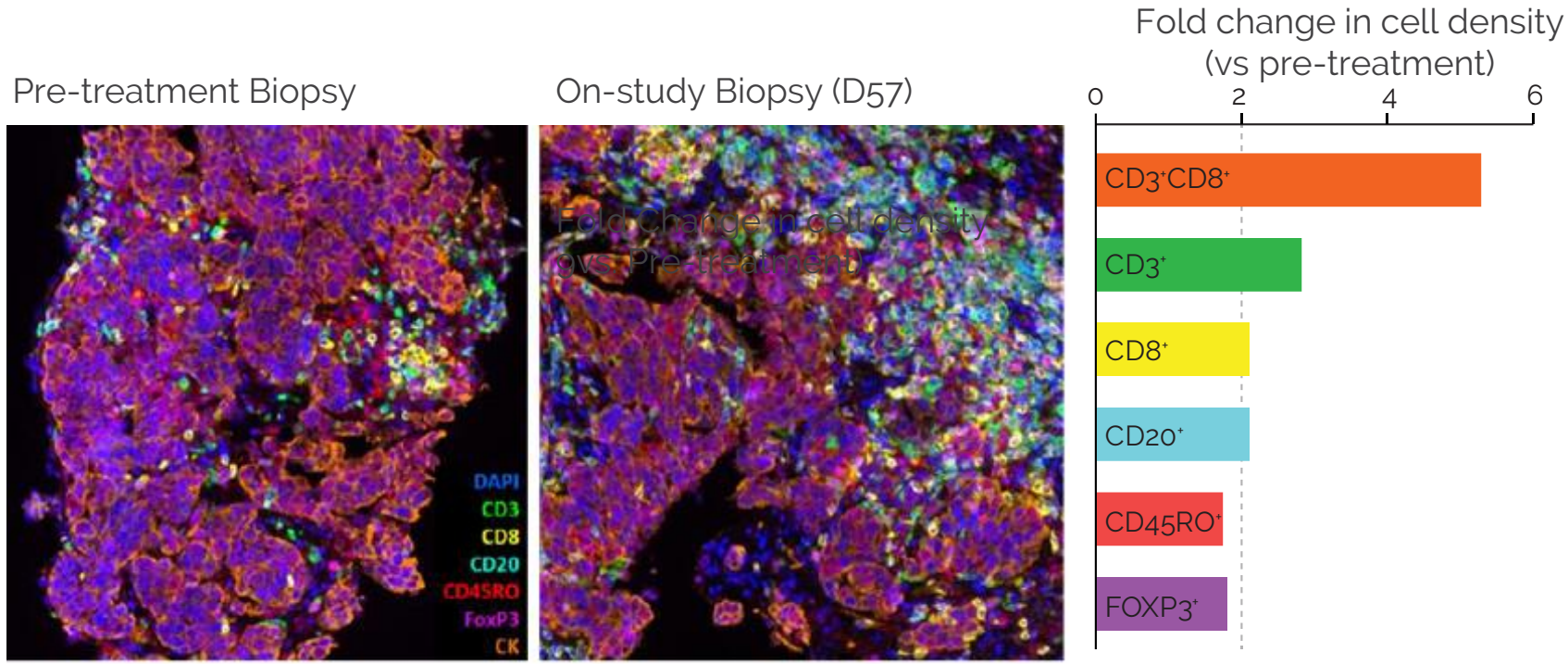


- Platinum sensitive and resistant
- Largest lesion no more than 4 cm
- No limit to # prior lines of therapy
- No prior exposure to anti-PD1/PD-L1
- ECOG 0-1

Current Status: accrual complete; 22 enrolled; 1 ongoing

DPX-Survivac Alters the Tumor Immune Environment

Proof-of-Principle for Immune Activation



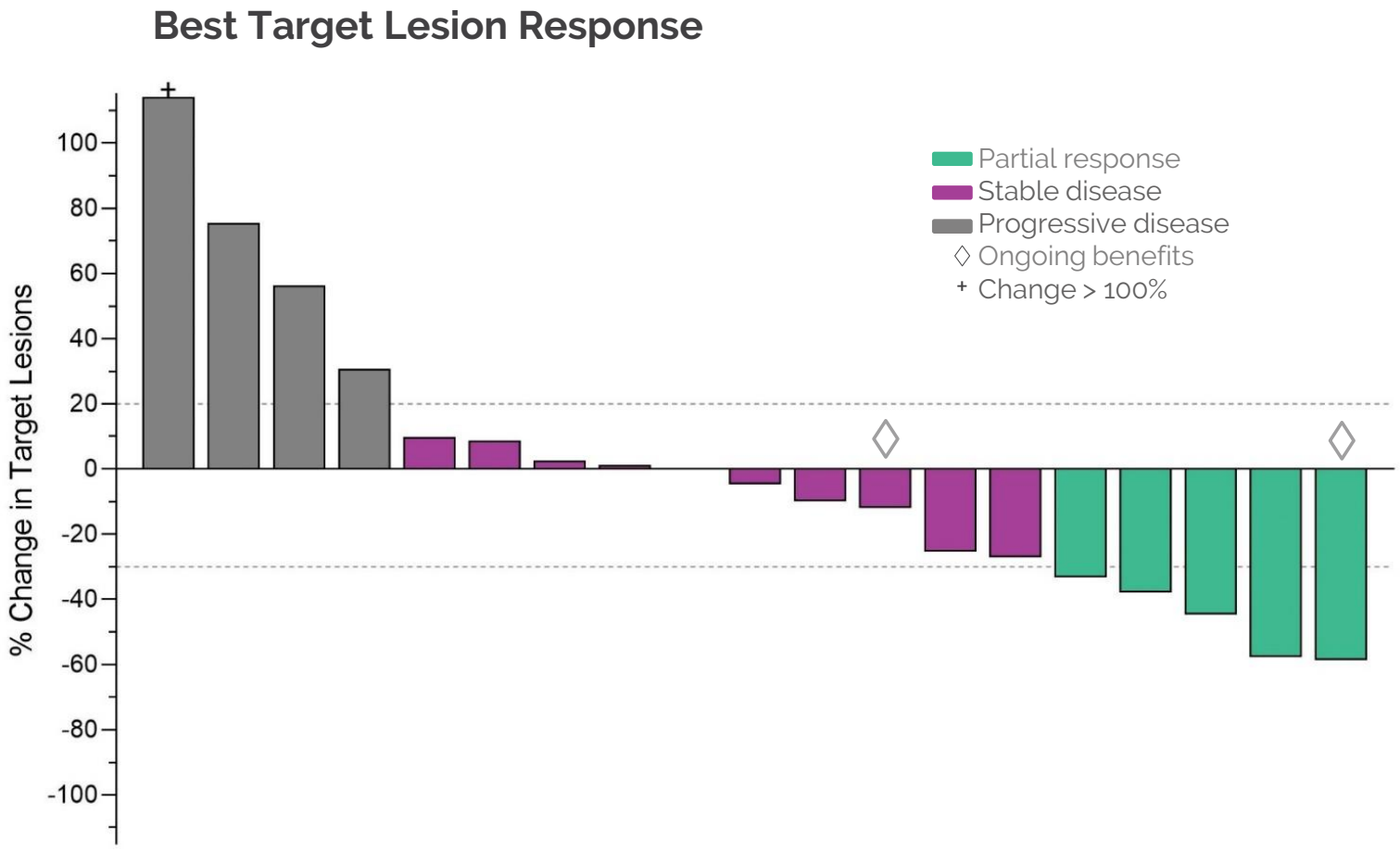
Significant increase of CD8+ T cell infiltration at the tumor site on treatment with DPX-Survivac

These data confirm the ability of DPX-Survivac to induce robust survivin-specific effector T cell response in ovarian cancer patients despite multiple lines of prior myelosuppressive therapies

Dorigo et al, ASCO 2020

~80% Patients Showed Clinical Benefits

Recurrent ovarian cancer, DPX-Survivac/CPA (N=19)



Tumor reduction and disease control were observed in the majority of the 19 evaluable subjects.

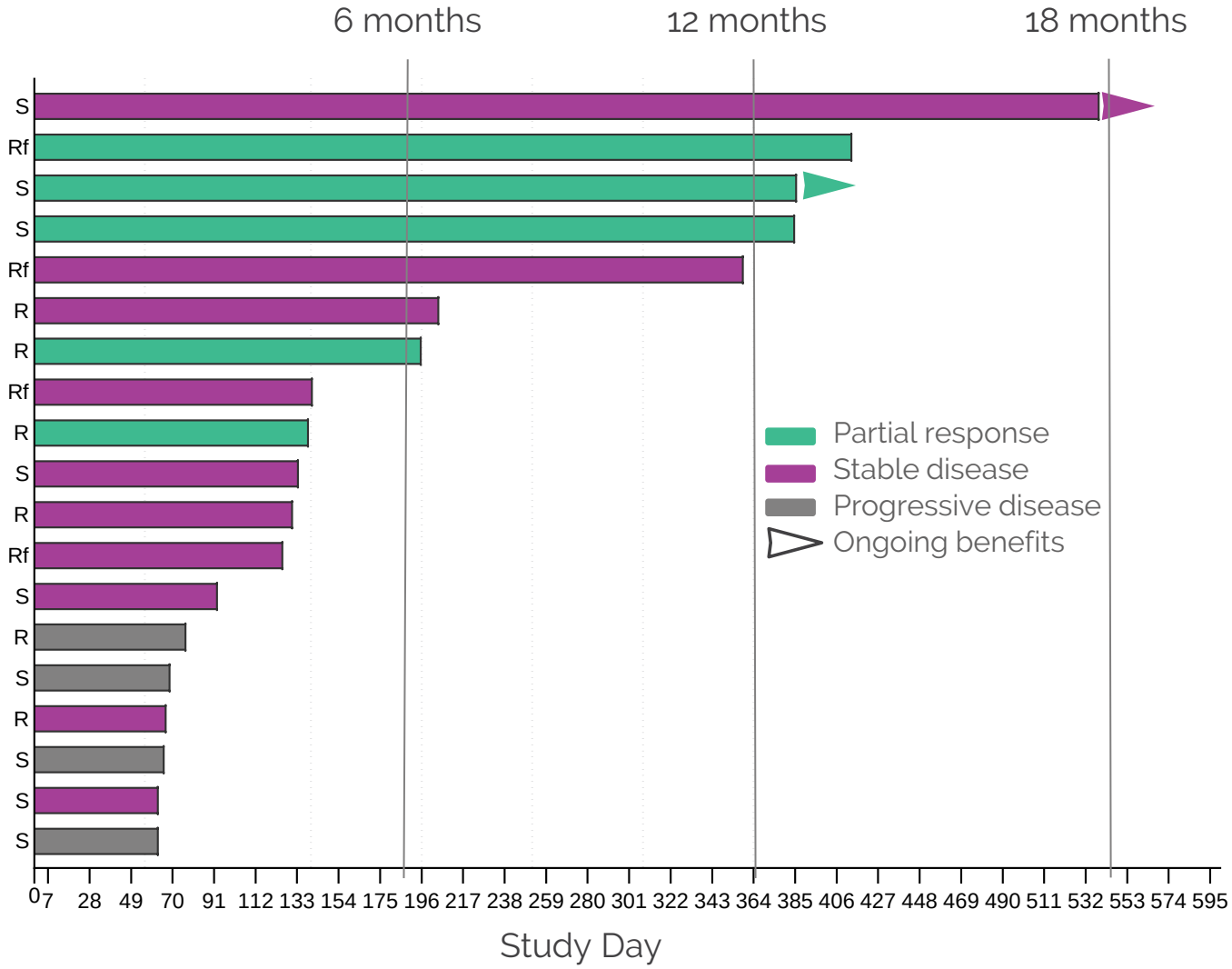
PR = 26.3%
SD = 52.6%

Clinical Benefit Rate 78.9%

PD = 21.1%

December KOLs meeting, study ongoing. Preliminary data, subject to change.

Responding Patients Show Durable Clinical Benefits



Platinum sensitive, resistant and refractory derived sustained benefits from DPX-Survivac

- 7/19 (37%) subjects with clinical benefits ≥ 6 months
- 5/19 (26.3%) subjects with clinical benefits up to or > 12 months

Exploring Other Cancer Indications in Combination With Keytruda

Solid Tumor Basket Phase 2 Trial

Exploring Keytruda combinations in five solid tumors: OvCa, HCC, NSCLC, BlCa, MSI-H

Phase 2 study in patients with advanced and recurrent solid tumors and treated with DPX-Survivac plus cyclophosphamide (CPA) in combination with pembrolizumab

Target n=184

As of October 30, 2020, a total of **106 patients enrolled** with recurrent ovarian cancer, liver, non-small cell lung cancer, bladder cancer and MSI-H cancers

1st Study scan on 23 patients shows **tumor reduction** in subjects with ovarian, non-small cell lung and bladder cancer, with **partial responses** observed in 2 subjects (data presented at ESMO in Sept. 2019)

Treatments have been **well tolerated** with no immune-related adverse events or grade 3-4 events reported

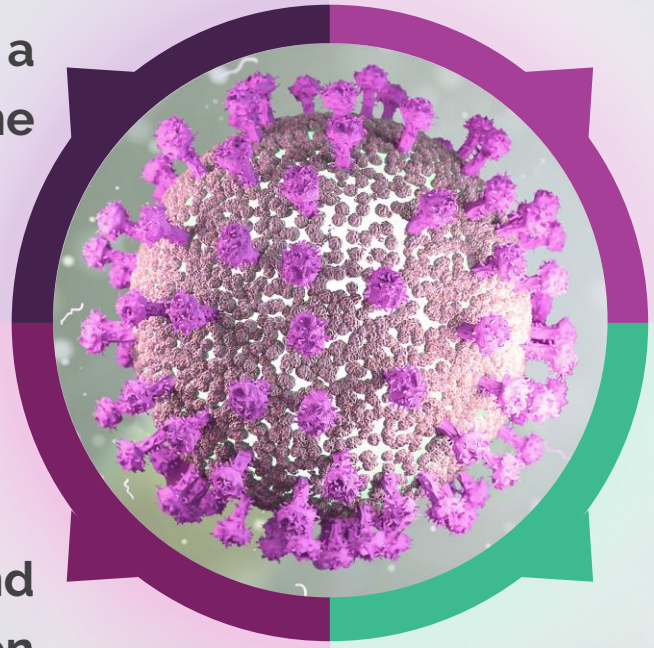
T cell infiltration observed in subjects with tumor reduction

Next update 1Q 2021

DPX-COVID 19 Opportunities

DPX-COVID-19 is designed to generate potent and durable protection against SARS-COV-2 and offers the potential for accelerated development and rapid, large-scale production

Novel peptide base enables a unique and targeted vaccine



DPX technologies are fully synthetic and lyophilized products

Potential to improve duration and efficacy in vulnerable population

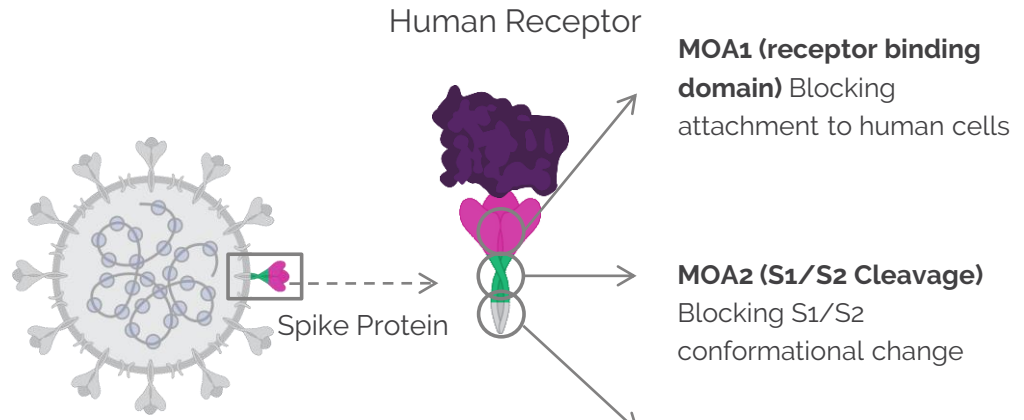
Stable product with long shelf-life facilitating stockpiling and distribution

DPX-COVID-19: A Unique and Highly Differentiated Approach

- IMV's targeted peptide epitope approach has the potential to optimize and exceed the safety and efficacy profile of more conventional vaccines
- Targeting of non-overlapping functional areas:
  - blocking, cleavage and infusion
- Protects against mutant variants
- Potential for improved safety and efficacy and best-in-class in most at-risk populations
- Development funded by the Canadian Govt.

Coronavirus-neutralizing antibodies primarily target the trimeric spike (S) on the coronavirus surface that mediate entry into host cells.

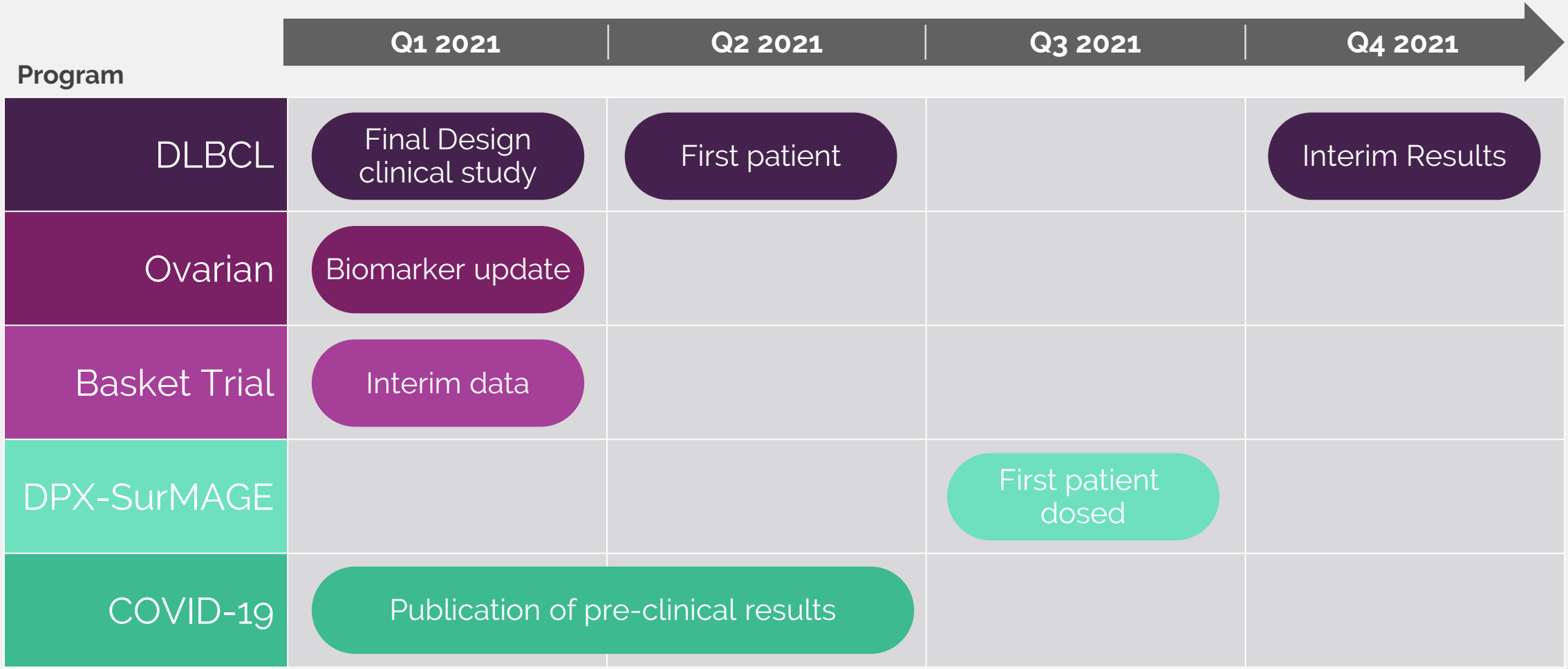
S1 subunit, mediates attachment to the host cell and the S2 domain mediates fusion and entry.



Summary

- Advancing novel immunotherapies for difficult-to-treat cancers and infectious diseases
- Proof of Concept from first Phase 2 studies in solid and hematologic cancers demonstrating efficacy, safety and duration
- De-risked clinical program in DLBCL on strength of positive data and establishment of biomarker
- Profile in ovarian cancer suggests multiple potential paths to market including monotherapy, combination and even maintenance therapy
- DPX-COVID-19 with potential ability to serve an older / immunocompromised population
- Fully synthetic formulation that allows rapid, cost-efficient scale-up manufacturing

Near Term IMV Milestones



Nasdaq & TSX: IMV

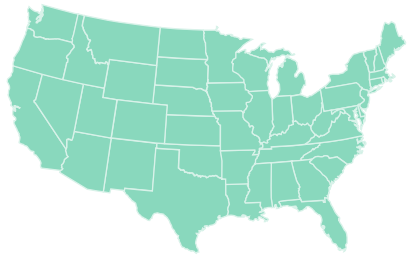
www.imv-inc.com

Financial Information (January 26, 2021)

Market cap	$US 238 M / $CAD 303 M
Cash	$US 40.9 M$ / CAD 57.5M$ (Sept. 30, 2020)
Outstanding shares Nov. 11, 2020)	Basic: 67.1 M Fully diluted: 71.6 M
52 Week Trading Range - Nasdaq	$US 1.35 - $US 6.82
52 Week Trading Range - TSX:	$CAD 1.98 - $CAD 9.25
Average daily volume (US & Canada) (as at 01/26/2021, last 30 trading days, includes alternative exchanges in Canada)	534 K shares

Analyst **Coverage** (8)

USA



- BTIG
- HC Wainwright
- Raymond James
- Wells Fargo

Canada

- Industrial Alliance Securities
- Mackie Research
- National Bank of Canada
- Leede Jones Gable

Top 5 institutional shareholders (November 11, 2020)

Ruffer LLP	11.1%
CTI Life Science	7.9%
Fonds de solidarite FTQ (FSTQ)	7.6%
Venrock Healthcare Capital Partners	6.0%
Lumira Capital Corporation	3.1%
Total Top 5	35.7%

* Source : 13 F filings and IMV