

IMV Inc.

IMV-NASDAQ | IMV-TSX

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Biotechnology

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Company Report - Initiation of Coverage

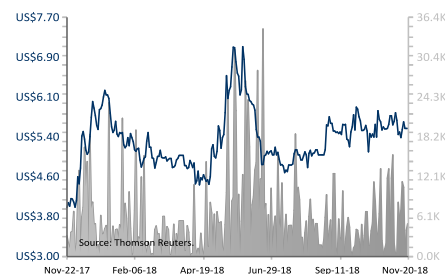
Outperform 2 US\$10.00 target price

Current Price (Nov-20-18)	US\$5.52
Total Return to Target	81%
52-Week Range	US\$7.21 - US\$3.97
Suitability	High Risk/Speculation

Market Data	
Market Capitalization (mln)	US\$248
Current Net Debt (mln)	-US\$13
Enterprise Value (mln)	US\$235
Shares Outstanding (mln, f.d.)	47.0
10 Day Avg Daily Volume (000s)	5
Dividend/Yield	US\$0.00/0.0%

Key Financial Metrics			
	2017A	2018E	2019E
P/E Ratios (GAAP)			
	NM	NM	NM
Shares Outstanding (mln, basic)			45.0
BVPS			US\$0.24
LT Debt (mln)			US\$7
% Cap			3%

Company Description
IMV Inc., is a Halifax-based, clinical stage, biopharmaceutical company developing a new class of immunotherapies based on the company's proprietary drug delivery platform technology. IMV's lead candidate, DPX-Survivac, is being evaluated in the clinic, in collaboration with Incyte and Merck.



Pioneering A Novel Approach To Immunotherapy

Recommendation

We are initiating coverage of IMV Inc. with an Outperform rating and a US\$10.00 per share target price (High Risk/Speculation suitability, given IMV's current stage of clinical development). We view IMV as a company that is potentially pioneering a new class of immunotherapies which are capable of reprogramming immune cells, in vivo. We view IMV's data generated to date around DPX-Survivac as highly encouraging, potentially supporting a number of fast to market strategies, broad oncology applicability and a strong, early line position in the therapeutic regimen.

Analysis

- DPX Represents A Novel Approach To Immunotherapy:** DPX is a lipid nanoparticle delivery platform with a "no release" mechanism of action (MOA). This MOA results in active uptake and in vivo delivery of active excipients into immune cells and lymph nodes. IMV believes this can be leveraged to program and generate new types of T cell therapeutic capabilities, bypassing conventional immune responses and their associated limitations. IMV's leading DPX formulation targets Survivin, a protein ubiquitously expressed across multiple tumor types, which in turn enables redirection of Survivin specific T cell infiltration.
- Compelling Anti-Tumor Activity:** DPX-Survivac, in combination with epacadostat and low dose cyclophosphamide, suggests DPX-Survivac monotherapy may prove superior to checkpoint inhibitors (ORR ~8-10%) and epacadostat (no activity) in recurrent ovarian cancer. Specifically, the combination was associated with a BOR of 4 PR and 8 SD for an ORR of 25% and an overall DCR of 75%. Recently, IMV has identified a subpopulation most likely to respond to DPX-Survivac therapy, supporting its use as a monotherapy in recurrent ovarian cancer.
- Multiple Clinical Read-outs:** IMV is expected to disclose top line data from its Phase Ib/II trial with DPX-Survivac in combination with epacadostat (300 mg) in December 2018 at ESMO-IO, where the company will also identify a subpopulation of patients most likely to respond to DPX-Survivac monotherapy. Preliminary Phase II results of DPX-Survivac as a monotherapy in ovarian cancer are expected 1Q19. Top line results of DPX-Survivac in combination with pembrolizumab in ovarian cancer and DLBCL are expected 1Q19. Preliminary results from a Phase II trial of DPX-Survivac in combination with pembrolizumab in a basket cohort is expected 1H19 with top line results to follow in 2H19.

Valuation

Our US\$10.00 per share target is based on a probability adjusted, net present value, sum of the parts analysis. Specifically, our model attributes \$4.51 of per share value to IMV's lead clinical asset, DPX-Survivac in recurrent, Survivin expressing, ovarian cancer. Additionally, we derive a \$5.30 per share value for DPX-Survivac's applicability in Survivin expressing DLBCL. See Valuation & Recommendation section for details.

GAAP EPS	1Q Mar	2Q Jun	3Q Sep	4Q Dec	Full Year	Revenues (mln)	-
2017A	US\$(0.06)	US\$(0.07)	US\$(0.05)	US\$(0.12)	US\$(0.30)	US\$96	
2018E	(0.07)A	(0.12)A	(0.14)A	(0.15)	(0.48)	350	
2019E	(0.15)	(0.15)	(0.15)	(0.15)	(0.59)	0	

Source: Raymond James Ltd., Thomson One

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Investment Overview

Pioneering A Novel Platform In Immuno-Oncology

IMV's foundational technology, DepoVax, enables a novel approach to deliver active ingredients to the immune system. DepoVax, which is a liposome-in-oil delivery technology, relies on a "no-release" mechanism of action, forcing an active uptake by antigen presenting cells. IMV is utilizing this unique mechanism of action to generate a new type of artificial T cell flow in the blood which can be triggered to kill cancer. IMV's lead clinical candidate, DPX-Survivac, encapsulates Survivin based peptides, licensed from Merck. Survivin, a protein member of the inhibitor of apoptosis protein family, has an important role in regulation of T cell responses in anti-tumor immunity and is ubiquitously expressed in a number of oncology indications. DPX-Survivac is currently being evaluated in four broad clinical trials, both as mono- and combination therapy, in recurrent ovarian cancer, DLBCL, and a basket cohort of Survivin expressing tumors.

Early, But Industry Leading, Anti-Tumor Activity In Recurrent Ovarian Cancer

As of ASCO 2018, IMV presented data from its ongoing Phase 1b/2 trial evaluating DPX-Survivac in combination with epacadostat and low dose cyclophosphamide. The combination was associated with a BOR of 4 PR and 8 SD for an ORR of 25% and an overall DCR of 75% (total evaluable cohort of n=16). Most impressively, in a more recent update, IMV disclosed strong indications of durability reporting on one particular responder which has progressed beyond the two year mark without disease progression. While these results are derived from a limited sample size, we view the observed anti-tumor activity as highly encouraging and even industry leading, particularly in light of avelumab's recent Phase III miss in ovarian cancer, where the drug was associated with an ORR of 3.7% as a monotherapy or pembrolizumab's all-comer trial results indicating an ORR of 8% with a max duration of response of 18.6 months. Recently, the company reported on the identification of a subpopulation most likely to benefit from treatment with DPX-Survivac. The company intends to further evaluate this population utilizing DPX-Survivac as a monotherapy without epacadostat which has failed to exhibit anti-tumor activity.

Multiple Clinical Catalysts Could Drive Shares Higher In 2019

IMV is guiding to multiple clinical read-outs in 2019 which we believe could represent significant value creation events for the company. Specifically, we expect the company to disclose preliminary data from its Phase 2 trial evaluating DPX-Survivac as a monotherapy in ovarian cancer in addition to Phase 2 results evaluating DPX-Survivac in combination with pembrolizumab both in DLBCL and ovarian cancer all within 1Q19. We anticipate preliminary results from its Phase 2 trial evaluating DPX-Survivac in combination with pembrolizumab in a basket cohort in 1H19 followed by top line results in 2H19. Finally, we anticipate clarity around a regulatory strategy supporting a "fast-to-market" approach in the aforementioned indications.

Initiating With An Outperform Rating And A US\$10.00 Target

IMV's lead clinical candidate, DPX-Survivac, is currently being evaluated as both a monotherapy and in combination with other therapeutics, in ovarian cancer, DLBCL and a basket cohort of other Survivin expressing tumors. As such, we believe the most appropriate valuation methodology to capture the inherent value of IMV's multiple clinical endeavors is through a probability adjusted, net present value, sum of the parts, analysis. In evaluating DPX-Survivac in recurrent ovarian cancer, we assume utilization in 2nd, 3rd and 4th line therapy. We model out sales only from the US and EU, and probability adjust at 30%. Our ovarian cancer valuation results in a per share value of \$4.51. With respect to DPX-Survivac in DLBCL, we model out utilization in 2nd and 3rd line therapy. We only account for sales from the US and EU and probability adjust at 10%. Our DLBCL valuation results in a per share value of \$5.30. In aggregate, our SOTP valuation methodology results in a US\$10.00 per share target for IMV.

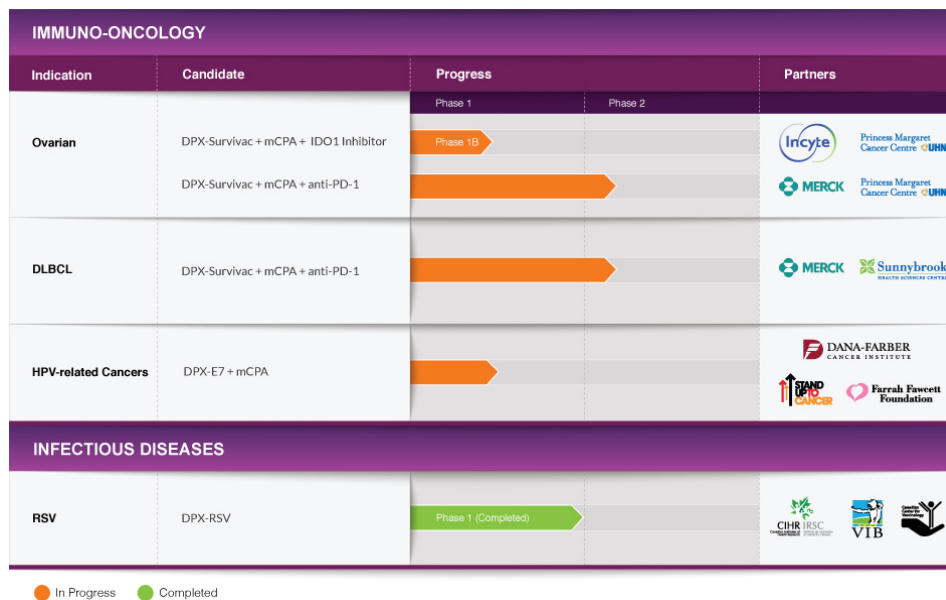
Company Overview

A Platform Technology Company Delivering A Novel Approach In Immuno-Oncology

Headquartered in Halifax, Nova Scotia, IMV Inc. is a clinical stage biotechnology company developing a novel class of immunotherapies enabled by its proprietary lipid depot-based delivery technology, DepoVax. Utilizing the DepoVax delivery platform, the company has generated data demonstrating that it is able to induce a strong and durable immune response which is believed to have significant applications in multiple oncology and infectious disease indications as well as other potential therapeutic areas. To date, the company’s underlying technology has garnered interest from a number of commercial partners including Incyte, Merck, Zoetis and Leidos.

IMV’s partnerships have resulted in a number of DepoVax formulations. Specifically, in the clinic, the company’s leading clinical candidate, DPX-Survivac, is currently being evaluated in a co-funded Phase Ib trial with Incyte, which is investigating the combination of DPX-Survivac with Incyte’s oral indoleamine 2,3-dioxygenase 1 (IDO1) inhibitor, epacadostat, in ovarian cancer patients. Additionally, DPX-Survivac is being evaluated in two investigator-sponsored Phase II clinical trials in combination with Merck’s selective humanized IgG4 monoclonal antibody, known as pembrolizumab, which targets the programmed cell death 1 (PD-1) receptor of lymphocytes, in patients with recurrent, platinum-resistant ovarian cancer and in patients with measurable or recurrent diffuse large B cell lymphoma. Finally, the company is also evaluating a DepoVax formulation in collaboration with the Dana-Farber Cancer Institute for use in human papillomavirus (HPV) related cancers. Beyond oncology, IMV has completed a proof of concept Phase I study utilizing a DepoVax based formulation targeting the respiratory syncytial virus (RSV). We present a review of IMV’s clinical pipeline in Exhibit 1.

Exhibit 1: IMV’s Product Candidate Pipeline



Source: IMV Inc.

Established To Address Canada’s Burgeoning Seal Population

The background of IMV reaches far into the annals of history, as far back as the 1980’s when Dalhousie University’s Dr. Kimmins, Dr. Robert Brown *et al* were contracted by the Department of Fisheries and Oceans to develop a contraceptive vaccine to control the growing seal population that was threatening the fisheries which supported the economy off of Atlantic Canada’s coastal waters. At the time, contraceptive vaccines, which were primarily aqueous based solutions requiring a priming shot and a booster, were able to achieve contraception approximately 70% of the time, however, would require re-vaccination every year which simply was not practical in this particular use case. As such, Dr. Brown *et al* opted to develop an oil-based emulsion to protect the

antigens, thus enabling far more durable stimulation of the immune system. The resulting effect was contraception in less than half the time, higher levels of contraception and a duration of effect approaching 11-12x that of the aqueous solution with a single dose. Identifying a broader applicability for this technology, Dr. Kimmins and Dr. Brown spun out the IP underlying this technology forming Immunovaccine Technologies Inc. on March 28, 2000.

From 2000 to 2004, Immunovaccine focused its efforts on animal contraception for both wildlife and companion animals, while also working on vaccines for infectious diseases in livestock with CSL Animal Health, which was subsequently acquired by Pfizer. The Pfizer Animal Health division was later spun out into Zoetis.

In 2004 and continuing through 2008, Immunovaccine began establishing its technology, now branded the VacciMax platform, for various human applications, while simultaneously establishing a scalable manufacturing process. By 2008, Immunovaccine had developed a lipid depot-based vaccine delivery and enhancement technology which they branded the DepoVax platform, an improvement on the foundational VacciMax platform. In October 2009, with DepoVax established, the company began trading on the TSXV under the name Immunovaccine Inc. with an IPO priced at \$0.70 per share.

Immunovaccine Finds Its Stride And Evolves Into IMV

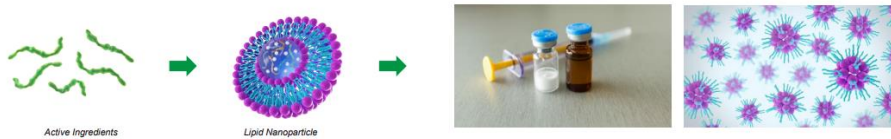
In 2010, Immunovaccine entered into an agreement with Merck to in-license Survivin antigens. Using traditional vaccine delivery technology, Merck had been unable to generate sufficient immunogenicity from these antigens to justify further development. Reformulating the Survivin antigens in its delivery platform, Immunovaccine observed in preclinical research that late-stage human cancers could be targeted. Thus, Immunovaccine's first clinical candidate, DPX-Survivac, emerged. However, despite this success, the early days of Immunovaccine as a public company were, in our view, limited by a lack of focus. The company pursued a number of endeavors attempting to find its stride, developing DepoVax in multiple preclinical studies utilizing antigens for H5N1 pandemic influenza, hepatitis B, melioidosis, cocaine, anthrax, and Ebola virus. While operationally the company appeared scattered, a consistent observation began to be drawn across all programs; specifically, that antigens administered utilizing DepoVax resulted in a significantly higher immune response after a single dose relative to two or three doses of a control vaccine.

Following a period of limited progress, the company was ripe for a refresh. In April 2015, Immunovaccine appointed Mr. Fred Ors as acting CEO of the company, a position that was cemented one year later on April 13, 2016. Ultimately, Mr. Ors was joined by former colleagues from Medicago (acquired by Mitsubishi Pharma in 2013 for \$357 mln) Mr. Andy Sheldon and Mr. Pierre Labbè. In our view, with the old Medicago team at the helm, Immunovaccine has clarified its strategy, focusing its efforts firmly on elucidating DepoVax's novel mechanism of action (MOA) and leveraging DPX-Survivac's ability to activate and direct T cell responses in multiple clinical development programs. With a newly articulated operational clarity, the company changed its name to IMV Inc. in May 2018, concurrent with its NASDAQ listing, to better reflect the business of the company, which has evolved well beyond the development of vaccines to a company that now develops novel immuno-therapeutics.

DepoVax: A Unique Oil-Based Delivery System

To enhance the potency of a peptide vaccine, IMV developed a novel vaccine platform called DepoVax, a liposome-in-oil platform containing stable components that does not require creation of an emulsion, simplifying the use of oil-based depot vaccines in the clinic. When formulated with peptide antigens, the DPX formulation can result in robust and persistent T cell immune responses. DPX may also include an adjuvant to help initiate and direct immune responses. To prepare DPX formulations, antigens and adjuvants are encapsulated in liposomes which are then lyophilized. The resulting cake is reconstituted directly in oil, such as Montanide ISA51 VG, prior to injection. The presence of the lipids ensures that all components of the formulation are suspended in the oil.

Exhibit 2: DPX Platform Technology



Source: IMV Inc.

It is this non-aqueous lipid nanoparticle suspension that results in DPX's "no release" mechanism of action which specifically:

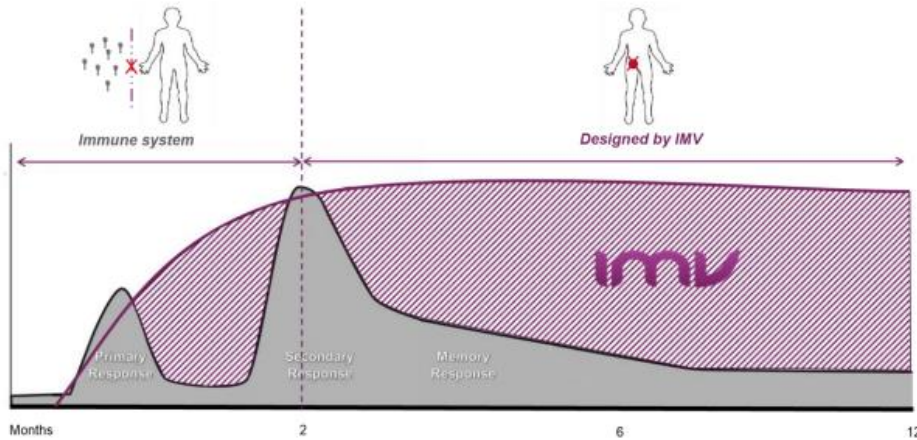
- Entraps and protects active ingredients from degradation and prevents off-target activity;
- Forces active uptake, targeted transport and delivery to the lymph nodes by immune cells (antigen presenting cells);
- Can be leveraged to specifically target and program immune cells (T cells and B cells), generating new therapeutic capabilities bypassing conventional immune responses and their inherent limitations;
- Affords the potential to co-deliver multiple ingredients all together to program immune cells.

To date, DPX has been dosed in over 200 patients. The technology is easily manufactured, is fully synthetic, can deliver both hydrophilic and hydrophobic compounds, has a wide range of applications (from the delivery of peptides, small-molecules, nucleotides, antibodies), is highly stable, particularly in lyophilized format, and is relatively cheap to produce.

DPX's Unique Mechanism Of Action May Represent A New Class Of Immunotherapeutics

The DPX platform provides a novel way to deliver active ingredients to the immune system. As discussed above, it relies on a "no release" mechanism of action forcing an active uptake by antigen presenting cells. DPX is substantially differentiated from other cancer vaccines, in that "generation 1" cancer vaccines tend to have short peak responses that fail to result in durable tumor regression. These short peak responses are simply unable to trigger an efficacious and durable tumor response. In contrast, DPX can bypass the immune system's own limitations by directly generating a new type of artificial T cell flow in the blood which can be triggered to kill cancer and be sustained over a long period of time with repeated injections every 2-3 months. DPX has been shown to induce prolonged target-specific and polyfunctional T cell responses, which are believed to be required for effective tumor control. We demonstrate the intensity and duration of T cell flow induced by other cancer vaccines vs. IMV's DPX technology in Exhibit 3.

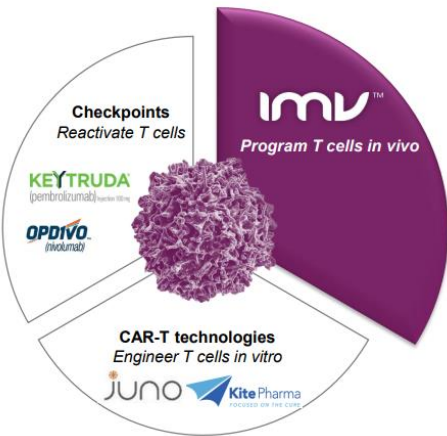
Exhibit 3: Sustained T Cell Response Induced By DPX



Source: IMC inc.

IMV endeavors to leverage this mechanism of action to pioneer a new class of immuno-therapeutics. Specifically, by preventing the release of active ingredients at the site of injection, DPX is able to bypass the steps involved in conventional immune “native responses” such as vaccines, and enables access and reprogramming of immune cells, in vivo, to generate new synthetic therapeutic capabilities. Specifically, IMV believes that the novel mechanism of action of DPX makes the platform particularly suitable for cancer immunotherapy, which is designed to target tumor cells.

Exhibit 4: DPX Has The Potential To Innovate Immuno-Oncology And Expand Applications Beyond Checkpoints And CAR-T’s



Source: IMV Inc.

DPX-Survivac: IMV’s Lead Clinical Candidate

The company’s lead clinical candidate DPX-Survivac, utilizes Survivin-based peptides licensed from Merck in July 2010, on a world-wide basis, formulated in DPX. The company is currently investigating DPX-Survivac in four broad clinical trials as follows:

1. Phase 1b/2 trial in ovarian cancer with Incyte: A triple combination of DPX-Survivac + oral cyclophosphamide (mCPA) + epacadostat (100mgs and 300 mgs). Recently amended to progress with DPX-Survivac (+mCPA) monotherapy.

2. Phase 2 trial in ovarian cancer with Merck: A triple combination of DPX-Survivac + oral cyclophosphamide (mCPA) + pembrolizumab
3. Phase 2 trial in Diffuse large B-cell lymphoma (DLBCL) with Merck: A triple combination of DPX-Survivac + oral cyclophosphamide (mCPA) + pembrolizumab
4. Phase 2 basket trial, including bladder, liver, ovarian, non-small cell lung and other microsatellite instability high (MSI-H) cancers: A triple combination of DPX-Survivac + oral cyclophosphamide (mCPA) + pembrolizumab

We present an illustrative review of IMV’s Immuno-Oncology pipeline in Exhibit 5.

Exhibit 5: DPX-Survivac Immuno-Oncology Pipeline

Indication	Treatment	N	Phase	Progress	
<i>Monotherapy</i>					
Ovarian (Maintenance)	DPX-Survivac monotherapy	56	Phases 1& 1b	Completed	
Ovarian subpopulation (Treatment)	DPX-Survivac monotherapy	18+	Phase 2	Ongoing	
<i>Combinations</i>					
Ovarian	Combination with epacadostat	53	Phases 1b	Enrollment completed	
Ovarian	Combination with Keytruda®	42	Phase 2	Ongoing	
DLBCL	Combination with Keytruda®	25	Phase 2	Ongoing	
Lung (NSCLC)	Combination with Keytruda®	43	Phase 2	Ongoing	
Bladder	Combination with Keytruda®	35	Phase 2	Ongoing	
MSI-H	Combination with Keytruda®	41	Phase 2	Ongoing	
Liver (HCC)	Combination with Keytruda®	55	Phase 2	Ongoing	
Ovarian subpopulation	Combination with Keytruda®	58	Phase 2	Ongoing	

Source: IMV Inc.

Survivin: A Unique Target For Tumor Immunotherapy

Cancer, one of the most widespread and prevalent class of indications globally, is a heterogeneous group of diseases where normal cells, through either spontaneous somatic or germline mutation begin to grow abnormally, escape control mechanisms, lose contact inhibition and in severe cases, gain the potential to metastasize and spread to other body parts. According to Global Cancer Facts & Figures, 3rd edition, it is predicted that by 2030, the global burden is expected to grow to 21.7 million new cancer cases and 13 million cancer deaths simply due to the growth and aging of the global population. Needless to say, cancer is fatal when not appropriately treated in a timely manner. Current standard of care including surgery, chemotherapy or radiotherapy has significantly improved prognosis, however, drug resistance and metastatic spread of the disease remains a significant challenge as median survival rate of many cancer types remains poor.

Recently, substantial clinical data indicates that immunotherapy can serve as a powerful therapeutic tool to prevent metastatic spread of cancer. According to a Market & Markets report released in January 2017, the global immunotherapy drugs market is projected to reach US\$201.5 bln by 2021 from US\$108.4 bln in 2016, growing at a CAGR of 13.5% during the forecast period. Today, the major players in the immunotherapy market include AbbVie, Amgen, AstraZeneca, BMS, Eli Lilly, GSK, JNJ, Merck, Novartis, Roche, and a number of smaller, development stage biopharmaceutical companies, a number of which are currently under coverage in the Raymond James research universe.

The fundamental thesis behind immunotherapy in cancer is that “nature does it best”, and thus there is no more efficacious “killer” than one’s own immune system. Thus, there has been substantial investment in driving efforts to harness the immune system to identify, treat and prevent tumor recurrence. To date, a number of immuno-oncology therapeutics have demonstrated their ability to prolong patient survival in the clinic, and these successes have in turn further elucidated the underlying immune dysfunction that is characteristic of cancer. Broadly speaking, immunotherapy can be broken down into distinct subgroups: monoclonal antibodies, bispecific antibodies, antibody-drug conjugates, non-specific immunotherapy (cytokine therapy, growth factor therapy, toll-like receptor agonists, immune response stimulators

such as BCG, etc.), checkpoint inhibitors, vaccines (oncolytic, antigen, whole cell, dendritic cell, DNA, anti-idiotypic vaccines, etc.) and adoptive cell transfer therapies.

With respect to checkpoint inhibitors, Yervoy (anti-CTLA-4, or ipilimumab, developed by BMS) was the first compound in this class to be approved for use in advanced metastatic melanoma. In cancer, these regulators (CTLA-4, PD-1 and its ligand PD-L1) act to inhibit CD8 T cell mediated anti-tumor immune responses that are crucial for tumor control. Monoclonal antibodies that target PD-1 and PD-L1 have shown impressive efficacy in cancer patients, with a significant percentage of patients experiencing durable response to these therapies. Several of these compounds are in advanced clinical trials, with one compound, Merck's Keytruda (pembrolizumab), having received FDA approval in September 2014 for advanced melanoma patients who have stopped responding to other therapies. BMS' compound nivolumab (Opdivo) has also been approved in the United States and Japan. These therapies have recently been approved for use in other advanced cancers including bladder cancer, non-small cell lung cancer, Hodgkin's Lymphoma, squamous cell carcinoma of the head and neck and stomach cancer. In addition, Keytruda in particular has been approved for use in cancers with a specific molecular indication irrelevant of cancer type, having been approved in May 2017 for use to treat solid tumors having a biomarker for microsatellite instability (MSI-H), which is a defect in the DNA repair pathway. This represents about 5% of a number of different tumor types, including colorectal, breast, prostate and thyroid cancers. However, despite recent clinical successes, induction or enhancement of anti-tumor response is a formidable challenge in cancer because tumor cells use multiple evasion strategies which allow them to avoid detection and associated elimination by immune cells.

In order to combat evasion mechanisms, research suggests that combination strategies, with checkpoint inhibitors, are likely to be good therapeutic options which drive tumor specific immune responses. These include novel cancer vaccines and T cell based therapies. These therapies fit well with checkpoint inhibition therapy because they simultaneously activate strong tumor specific immune responses, while releasing the brakes on immune suppression. The success of such combinations should allow pharmaceutical companies to significantly expand the market of their checkpoint inhibitors, which are currently effective in approximately 10% to 30% of patients. IMV believes that T cell therapies will become an important component of these novel combination immunotherapies, with the potential to induce synergistic benefits which is likely to become an essential part of a multi-pronged approach for the treatment of cancer.

Resistance to apoptosis (cell death) is one important evasion mechanism by which tumor cells escape detection by immune cells and promote their proliferation at the same time. Therefore, molecules involved in regulation of apoptosis can be potential targets for tumor therapy including immunotherapy. One key group of proteins, the inhibitor of apoptosis protein family (IAPs) is critically involved in the regulation of apoptosis. IAPs also have an important role in regulation of T cell responses in anti-tumor immunity. One member of this protein family, Survivin, is particularly interesting due to its overexpression in multiple tumor types (see Exhibit 6).

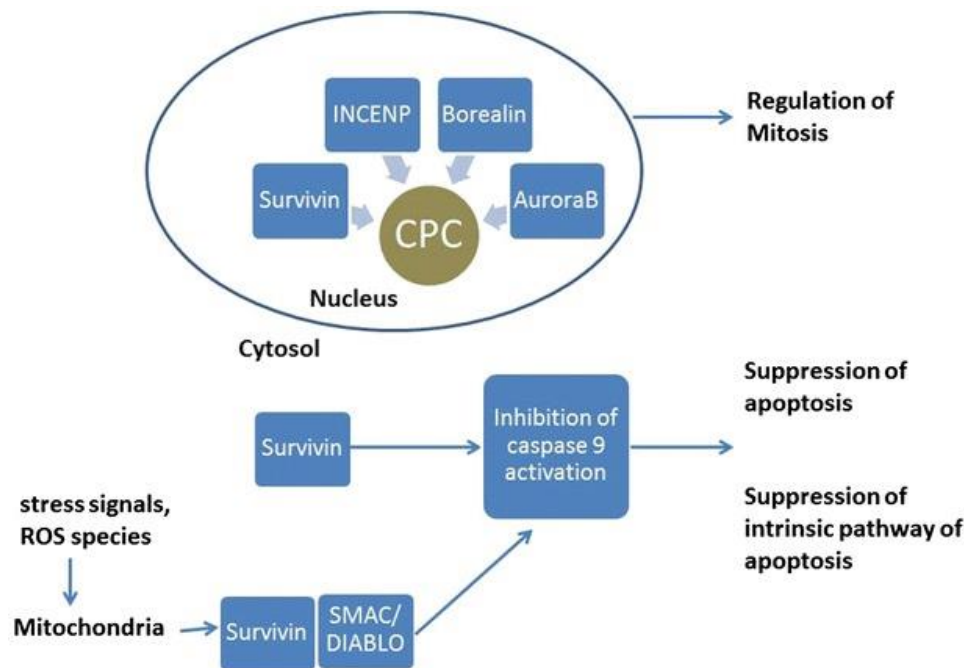
Exhibit 6: Ubiquitous Expression of Survivin

Cancer	Expression (%)
Lung Cancer	86%
Oesophageal Cancer	80%
Breast Cancer	71-90%
Pancreatic Cancer	77-88%
Ovarian Cancer	74%
Malignant Melanoma	67%
Colorectal Cancer	64%
Hepatocellular Carcinoma	41-87%
Gastric Cancer	35-68%
Bladder Cancer	58%
Acute Myeloid Leukemia	55%
Acute Lymphocytic Leukaemia	69%
Oral Cancer	72-75%

Source: Jaiswal et al., Indian J Med Res. 2015.

In short, Survivin spans 14.7 kb at the telomeric end of chromosome 17 and encodes the 16.5 kD protein encompassing 142 amino acids. Survivin has a dual function, playing both a role in cell death regulation and mitotic progression which we illustrate in Exhibit 7.

Exhibit 7: The Unique Role Of Survivin In Both Apoptosis And Cell Division



Source: Garg et al., Cancer Cell Int. 2016.

Research suggests that the expression of Survivin is altered in cancer, and that certain changes may be directly implicated in the carcinogenic process. Due to its role as a cancer gene intersecting multiple cellular networks, Survivin has been vigorously used as a cancer drug target. When compared to with other apoptosis-based cancer therapies, Survivin provides several

advantages: First, the disabling of Survivin is expected to compromise multiple signaling networks required for tumorous maintenance. Second, Survivin may be a unique target for molecular antagonists, cancer vaccine and gene therapy. Third, expression of Survivin is regulated by the Wnt signaling pathway that has a major role in stem cells and it is possible that Survivin antagonists may affect cancer stem cells. Fourth, Survivin is important in tumor formation/progression, especially angiogenesis, and Survivin inhibitors have been shown to act on both the transformed population and endothelial cells in tumor. Fifth, although Survivin expression has been shown in cytokine stimulated haematopoietic progenitors and in activated T cells, targeting this pathway does not affect the normal cells or tissues suggesting a favourable toxicity profile of Survivin based therapeutics. Survivin-directed immunotherapy will be the foundation linking the four clinical trials we discuss below.

Phase 1B/2 Clinical Trial In Ovarian Cancer With Incyte

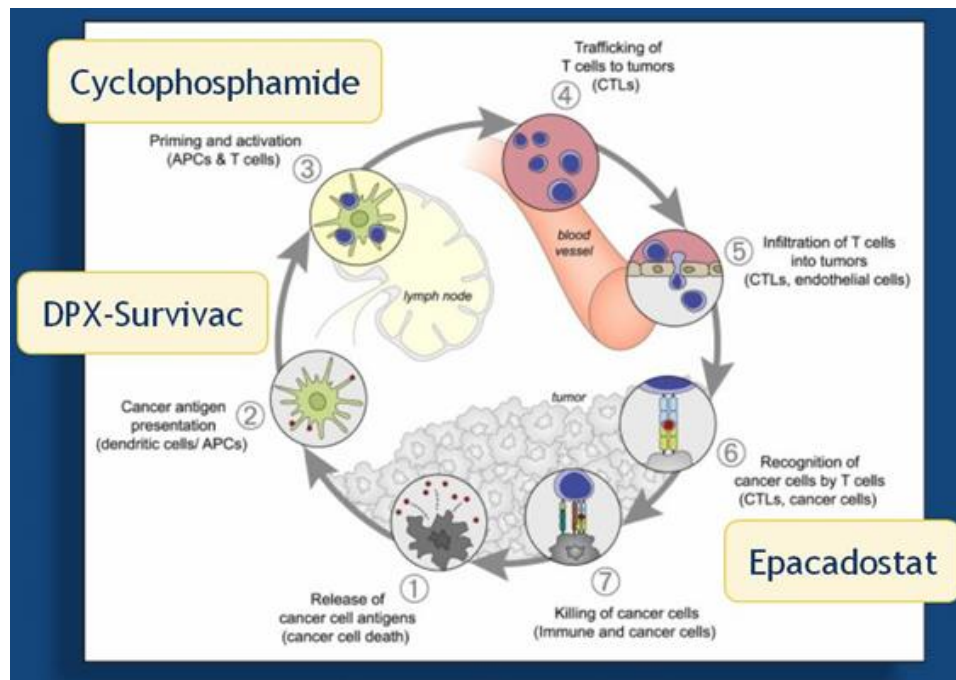
Product Overview

DPX-Survivac has been granted orphan drug designation for use in ovarian cancer by the EMA and fast track designation by the FDA for use in patients with no measurable disease after their initial surgery and chemotherapy. In June 2015, IMV announced it had entered into a non-exclusive clinical trial collaboration with Incyte to evaluate the combination of:

1. IMV's DPX-Survivac: a novel T cell activating therapy containing a mix of HLA class I peptides designed to evoke a T cell response against Survivin;
2. Low dose Cyclophosphamide: an oral anti-tumor, alkylating chemotherapeutic, used as an immune modulator;
3. Incyte's investigational oral IDO1 inhibitor, epacadostat: a selective oral inhibitor of the enzyme indoleamine 2,3 dioxygenase 1.

We present a review of IMV's DPX-Survivac triple combination in Exhibit 8.

Exhibit 8: Triple Combination Immunotherapy



Source: Chen and Mellman, Immunity, 2013.

IMV and Incyte are co-funding and conducting a multicenter, non-randomized, open-label, uncontrolled Phase 1b study, named the DeCidE trial, to evaluate the safety, tolerability and efficacy of the novel combination in platinum resistant or sensitive ovarian cancer patients who are at high risk of recurrence.

All patients enrolled in the trial have recurrent ovarian cancer with evidence of progressive disease. The IND for the study (NCT02785250), which is testing the triple combination of DPX-Survivac, two doses of epacadostat (100 mg and 300 mg) and low dose oral cyclophosphamide, was approved by the US FDA and Health Canada in January 2016. The study was initiated on September 8, 2016 and investigators have now completed enrolment with a total of 53 patients across the two dosing groups, as announced by the company on August 9, 2018.

On April 24, 2018, IMV announced that it has entered into an agreement with Incyte Corporation to expand their ongoing clinical trial collaboration. IMV and Incyte reported on their plan to add a Phase 2 component to their ongoing Phase 1b combination study evaluating the safety and efficacy of DXP-Survivac in combination with epacadostat and low dose cyclophosphamide in advanced ovarian cancer patients. As originally planned, the Phase 2 was to be a multicenter, randomized, open label, efficacy study that would include up to 32 additional evaluable subjects. It was expected to evaluate DPX-Survivac and low dose cyclophosphamide with, and without, epacadostat in patients with advanced recurrent ovarian cancer. The goal of this part of the program was to evaluate the clinical contribution of each investigational drug in the combination regimen. The Phase 2 arm of the study was to be cofounded by IMV and Incyte. On August 9, 2018, IMV announced that the first patient had been treated however, on November 20, 2018, IMV announced their intention to proceed with DPX-Survivac as a monotherapy without epacadostat.

DPX-Survivac Combo Is Well Tolerated And Is Associated With Compelling Anti-Tumor Activity

On March 2017, IMV announced the first interim data analysis from this clinical study. The analysis included the results of blood tests, tumor biopsies and CT scans to assess safety, disease progression and T cell response for the first four evaluable patients in the trial. Based on the interim analysis, the combination therapy appeared to be well tolerated with treatment being associated with a single grade 3 and single grade 4 event and no serious adverse events (SAEs). At the time of the interim analysis, 3/4 patients exhibited stable disease (SD), while a fourth patient progressed (PD) and exited the trial. Notably, IMV observed increased T cell activity in tumors in three of the four patients based on RNA sequencing and also reported indications of early tumor shrinkage in the patient who has been in trial for the longest duration at the time of analysis (based on CT scan at day 140).

In December 2017, IMV provided positive top-line clinical data. Initial results from 10 evaluable patients in the DPX-Survivac + 100 mg epacadostat cohort demonstrated a disease control rate (DCR) of 70%. This included a best overall response (BOR) of 3 PR's (30%). The combination also exhibited a well-tolerated safety profile, with the majority of AE's reported as grade 1 and grade 2. Blood tests indicated that the majority of treated patients exhibited targeted T cell activation. Tumour biopsies and analyses thus far have supported the thesis that combination with DPX-Survivac triggers T cell infiltration into the tumor. This T cell activation was also correlated with tumor regression. At the time of data cut-off, there were also preliminary data on the first three evaluable patients in the second dosing cohort evaluating the combination of 300 mg BID epacadostat, DPX-Survivac, and low-dose cyclophosphamide. From the first three evaluable patients, IMV reported 2 SD's, with one of the two patients showing tumor regression of approximately 25 per cent, just missing the 30% threshold for a PR.

At the ASCO 2018, IMV provided the most recent update on the clinical trial. At the time of data cut-off, 39 patients were enrolled (including 25 new participants in the 300 mg cohort with 8 evaluable from day 56's first CT scan, two of which were no longer on trial at the data cut-off). A total of 26 patients with current epithelial ovarian cancer, Fallopian tube or peritoneal cancer, who had received a single dose of treatment, were evaluable for safety (n=14 in epacadostat 100 mg group and n=12 in epacadostat 300 mg group). Patient baseline characteristics were generally well matched and were heavily pretreated with a median of 3.1 prior systemic regimens in the 100 mg epacadostat group and 4.5 prior regimens in the 300 mg epacadostat cohort.

Exhibit 9: ASCO 2018 Baseline Characteristics

Subject Profile		
Parameter	Group 1 (N=14)	Group 2 (N=12*)
Age: Mean (Range)	65 (35-79)	57 (36-72)
ECOG: 0	11 (79%)	6 (50%)
1	3 (21%)	6 (50%)
HLA Match	14 (100%)	12 (100%)
Cancer Type: EOC	8 (57%)	9 (75%)
FT	3 (21%)	1 (8%)
P	3 (21%)	2 (17%)
Stage at Diagnosis: 3c	10 (71%)	8 (67%) [†]
4	4 (29%)	2 (17%)
1 st Line Platinum Sensitivity: S	11 (79%)	10 (83%)
R	3 (21%)	2 (17%)
Last Line Platinum Sensitivity: S	6 (43%)	1 (8%)
R	8 (57%)	11 (92%)
Prior Lines: Mean (Range)	3.1 (1-7)	4.5 (1-7)

EOC (epithelial ovarian), FT (fallopian tube), P (peritoneal) Platinum Resistant (R) = 3-6m after first line, 0-6m after last line [†]One subject diagnosed as 1c and one as 3a

- Group 1: DPX-Survivac, mCPA, ≤ 100 mg BID epacadostat
 - All tested subjects expressed survivin
- Group 2: DPX-Survivac, mCPA, 300 mg BID epacadostat
- *Enrollment to Group 2 is ongoing

Source: Dorigo et al. ASCO 2018.

Treatment with the triple combination was well tolerated with the majority of AE's reported at grade 1 or grade 2.

Exhibit 10: DPX-Survivac Triple Combination Is Well Tolerated

Safety (CTACE v 4.03)					
Systemic Events					
Toxicity	G 1	G 2	G 3	G 4	Total (%)
Nausea	10 (38)	4 (15)	-	-	14 (54)
Fatigue	9 (35)	2 (8)	2 (8)	-	13 (50)
Diarrhea	2 (8)	3 (12)	-	-	5 (19)
Rash/Rash	-	2 (8)	2 (8)	-	4 (15)
Maculo-papular	-	-	-	-	-
Vomiting	3 (12)	1 (4)	-	-	4 (15)
Lipase Increased	-	-	2 (8)	1 (4)	3 (12)
Abdominal Distension	2 (8)	1 (4)	-	-	3 (12)
WBC Count Decreased	2 (8)	1 (4)	-	-	3 (12)
Pyrexia	3 (12)	-	-	-	3 (12)
Decreased Appetite	3 (12)	-	-	-	3 (12)
Dehydration	-	2 (8)	-	-	2 (8)
Dizziness	2 (8)	-	-	-	2 (8)
Pruritus	2 (8)	-	-	-	2 (8)

Injection site reactions					
Toxicity	G 1	G 2	G 3	G 4	Total (%)
Induration	13 (50)	1 (4)	-	-	14 (54)
Erythema	13 (50)	-	-	-	13 (50)
Pruritus	5 (19)	-	-	-	5 (19)
Warmth	5 (19)	-	-	-	5 (19)
Atrophy	3 (12)	1 (4)	-	-	4 (15)
Pain	3 (12)	-	-	-	3 (12)
Bruising	2 (8)	-	-	-	2 (8)
Exfoliation	2 (8)	-	-	-	2 (8)
Rash	2 (8)	-	-	-	2 (8)

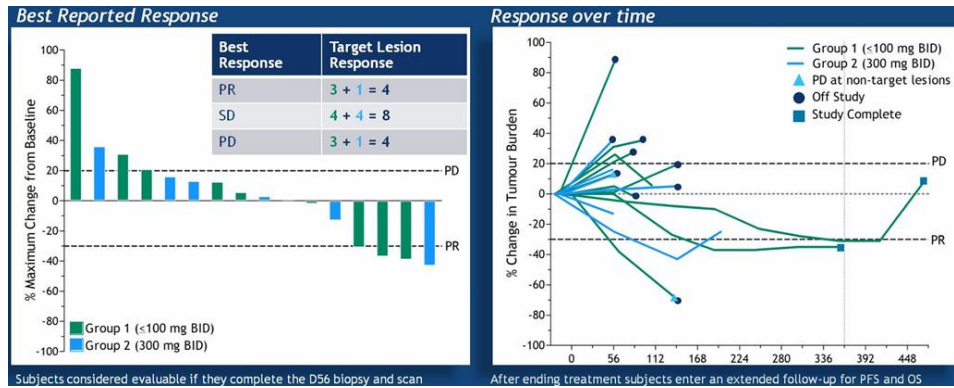
• Group 1 N = 14
• Group 2 N = 12, enrollment ongoing

Events possibly, probably, or definitely related to study treatment and occurring >1 subject

Source: Dorigo et al. ASCO 2018.

Data from the 16 evaluable patients as of the data cut-off date (March 16, 2018), across both dosing cohorts demonstrated a BOR of 7 tumor regressions, 4 of which were PR. Looking specifically at 6 evaluable participants in the 300 mg epacadostat cohort who remained on study as off the data cut-off date, the BOR included 1 PR and 4 SD for a DCR of 83%. The 1 PR in this group was recorded with a tumor regression ongoing for more than 9 month providing early evidence of a long durable response.

Exhibit 11: Percent Change From Baseline in Target Lesion



Source: Dorigo et al. ASCO 2018.

IMV plans to report updated results on these patients and others enrolled in the trial when data from at least 16 evaluable participants in the second dosing cohort are available. In our view, while the data is clearly still preliminary, when viewed in the context of other ovarian cancer targeted immunotherapy trials, IMV’s results outperform in what is a heavily pretreated and immunocompromised patient population (Exhibit 12).

Exhibit 12: Ovarian Cancer IO Trial Results Comparison

Ovarian Cancer IO Clinic Trial	Trial Phase (Pt n)	DCR	ORR
Checkpoint Immunotherapy			
Ipilumab-BMS (CTLA-4)	PI (n=9)	44% (1 PR + 3 SD)	11% (1 PR)
Epacadostat-Incyte (IDO1)	PII (n=20)	0% (1 CA 125 reduction)	0%
Pembrolizumab-Merck (PD-1)	PIb (n=26)	35% (6 SD + 3 PR)	12% (1 CR + 2 PR)
Nivolumab-BMS (PD-1)	PII (n=18)	44% (2 CR + 1 PR + 5 SD)	17% (2 CR + 1 PR)
Avelumab-Merck (PD-L1)	PIb (n=124)	54% (12 PR + 55 SD)	10% (12 PR)
BMS-936559 (PD-L1)	PI (n=17)	24% (1 PR + 3 SD)	6% (1 PR)
Checkpoint + PARPi			
Durvalumab-AZ (PD-L1) + Olaparib (PARPi)	PI/II (n=12)	83% (2 PR + 9 SD)	17% (2 PR)
Pembrolizumab + Niraparib (PARPi)	PII (n=60)	67% (3 CR + 12 PR + 25 SD)	25% (3 CR + 12 PR)
Combination Immunotherapy			
Epacadostat + Pembrolizumab	PII (n=37)	35% (10 SD + 3 PR)	8% (3 PR)
Epacadostat 100mg + Nivolumab	PI/II (n=18)	28% (3 SD + 2 PR)	11% (2 PR)
Epacadostat 300mg + Nivolumab	PI/II (n=11)	36% (2 SD + 1 PR + 1 CR)	18% (1 PR + 1 CR)
Average	n=32	47%	13%
DPX-Survivac + mCPA + Epacadostat 100mg	PIb (n=10)	70% (3 PR + 4 SD)	30% (3 PR)
DPX-Survivac + mCPA + Epacadostat 300mg	PIb (n=6)*	83% (1 PR + 4 SD)	17% (1 PR)
Average DPX-Survivac + mCPA + Epacadostat	PIb (n=16)	75% (4 PR + 8 SD)	25% (4 PR)

*n=2 additional patients with SD no longer on study as of data cut-off

Source: Updated from IMV Inc.

In addition to objective tumor response, IMV also analyzed patient data to study the combination’s MOA. Blood samples and tumor biopsies for the 10 evaluable patients treated in the first dosing cohort were analyzed. These data demonstrated:

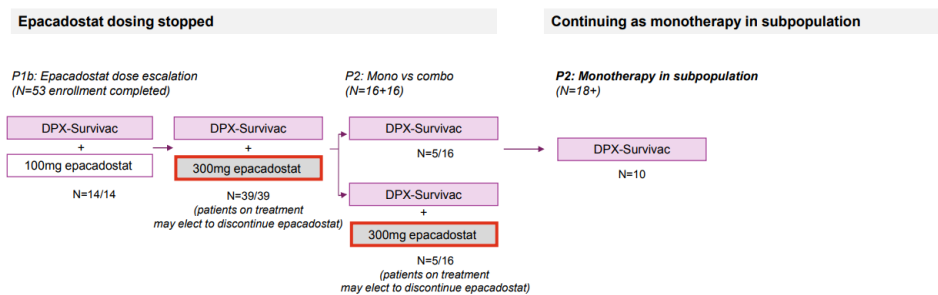
- Survivin-specific T cell responses detected in 100% (10/10) of patients;
- Increase in T cell infiltration post treatment in 37% (3/8) of the analyzable tumor biopsies based on two complementary testing methodologies (RNA sequencing and immunohistochemistry), demonstrating treatment with DPX-Survivac does indeed increase T cell infiltration into the tumor;
- 2 of the 3 patients with T cell infiltration showed PRs with significant and durable tumor regressions lasting more than one year;
- The third patient with T cell infiltration exhibited PD with evidence of down regulation of the major histocompatibility presentation pathway and significant increases in suppressive markers, both indicative of mechanisms of resistance.

DPX-Survivac Will Continue As A Monotherapy

On November 20, 2018, IMV announced that following a post hoc analysis of data from the phase 1b portion of the clinical trial of DPX-Survivac in combination with cyclophosphamide and epacadostat, the company has identified a subpopulation of patients, stratified by a clinical marker predictive of response to DPX-Survivac, that appear to benefit most from treatment. Specifically, in this subpopulation of patients in the 100 mg epacadostat arm (n=5), 100% of patients experienced tumor regression and a 100% DCR was observed. The BOR in this group was 3 PR, for an ORR of 60%. While we admit that this analysis is limited by two factors, specifically that this is a post-hoc analysis of the data and the sample size is limited, we were particularly impressed by the duration of response reported by the company in this responder group, where a median duration of 590 days was reported, including one patient that has progressed beyond the two year mark without disease progression.

Concurrent with this subgroup analysis, IMV reported that based on results from the 300 mg epacadostat arm, the company and Incyte have agreed to stop dosing patients with epacadostat, which to date has failed to demonstrate any tangible activity in recurrent ovarian cancer. IMV will continue the Phase 1b/2 trial as a monotherapy (with low dose cyclophosphamide as a conditioning regimen), further evaluating DPX-Survivac in the recurrent ovarian cancer subpopulation.

Exhibit 13: DPX-Survivac In Phase 1b/2 Trial To Continue As A Monotherapy



Based on 300mg cohort results, IMV and Incyte have agreed to stop dosing patients with epacadostat

Source: IMV Inc.

IMV anticipates meeting with the US FDA in December 2018 to present its subgroup analysis in the hopes of clarifying a path to a registrational trial as a monotherapy in recurrent ovarian cancer. Furthermore, IMV will present detailed results of this analysis in December 2018 at the ESMO Immuno Oncology conference (held December 13-16, 2018 in Geneva, Switzerland).

Phase II Clinical Trial In Ovarian Cancer With Merck

In February 2017, IMV announced an Investigator-Sponsored Phase 2 clinical trial in ovarian cancer in combination with Merck's checkpoint inhibitor pembrolizumab in patients with recurrent, platinum-resistant ovarian cancer (NCT03029403). Toronto's University Health Network's Princess Margaret Cancer Centre will conduct the phase 2 non-randomized, open-label trial, which is designed to evaluate the potential anti-tumor activity of the combination of pembrolizumab, DPX-Survivac, and low-dose cyclophosphamide.

The trial is expected to enroll 42 subjects with advanced epithelial ovarian, fallopian tube or primary peritoneal cancer. The study's primary objective is to assess overall response rate. Secondary objectives include progression free survival rate, overall survival rate, and potential side effects, over a five-year period. IMV expects to disclose top line results in 1Q19.

Phase II Clinical Trial In DLBCL With Merck

On November 8, 2017, IMV announced that Health Canada had granted the Sunnybrook Research Institute regulatory clearance to begin recruiting patients for its Phase 2 clinical study of a triple-combination immunotherapy in patients with measurable or recurrent diffuse large B-cell lymphoma, an indication where Survivin is expressed in approximately 60% of cases. This trial (NCT03349450), announced initially in May 2017, is designed to evaluate the safety and efficacy of IMV's lead product candidate, DPX-Survivac, along with Merck's pembrolizumab and low-dose cyclophosphamide.

The trial is a non-randomized, open label study and is expected to enroll 25 evaluable participants at five centers in Canada. On September 18 2018, IMV announced preliminary data from this clinical trial. The preliminary data included assessment of safety and clinical activity (based on modified Cheson criteria) for the first four evaluable patients who have completed their first CT scan after the start of treatment. The data demonstrated that:

- Two of the first four evaluable participants showed tumor regressions at the first on-treatment CT scan;
- The first enrolled participant demonstrated a tumor regression of 48% at first on-treatment scan;
- The second participant demonstrated a partial response (PR) via a tumor regression of 66% at first on-treatment scan;
- Preliminary data from the third participant demonstrated stable disease;
- The other participant had early disease progression less than two months following treatment initiation and was discontinued from the study;
- The combination therapy appears to demonstrate an acceptable safety profile, with no serious adverse events reported to date.

IMV is expected to disclose top-line from the trial in 1Q19.

Phase II Basket Trial With Merck

On September 11, 2018, IMV announced the expansion of its Immuno-Oncology development pipeline with a planned Phase 2 basket trial in collaboration with Merck evaluating its lead candidate, DPX-Survivac, in combination with low dose cyclophosphamide and Merck's anti-PD-1 therapy, pembrolizumab in patients with select advanced or recurrent solid tumors.

The open-label, multicenter, Phase 2 basket study will evaluate the safety and efficacy of the immunotherapeutic combination agents in patients with bladder, liver, ovarian, or non-small cell lung cancers as well as tumors shown to be positive for the microsatellite instability high (MSI-H) biomarker. IMV plans to enroll more than 200 patients across five indications at multiple medical centers in Canada and the United States. IMV expects to initiate trial enrollment in the 4th quarter of 2018 with preliminary results expected in the first half of 2019. Following the November 20, 2018 announcement detailing the identification of a biomarker predictive of response to DPX-Survivac, the company has suggested that this biomarker will be used to prospectively select ovarian cancer patients in the basket trial.

Other DepoVax Enabled Programs

In collaboration with both commercial and academic partners, IMV is expanding the application of DepoVax as a delivery platform. The company has pursued a number of endeavors where it believes the DPX platform may be applicable by generating a stronger and more durable immune activation. We review these programs below:

HPV Related Cancers

On April 17, 2017, IMV announced that the first study participant had been treated in a Phase 1b/2 clinical study evaluating IMV's investigational cancer vaccine, DPX-E7, in combination with low-dose cyclophosphamide in patients with incurable oropharyngeal, cervical and anal cancers related to HPV. Dana-Farber is leading the DPX-E7 study through a \$1.5 million research grant from Stand Up To Cancer and the Farrah Fawcett Foundation to clinically evaluate collaborative translational research that addresses critical problems in HPV-related cancers.

The Dana-Farber study is a single center, open label, non-randomized clinical trial that will investigate the safety and clinical efficacy of DPX-E7 in combination with low-dose metronomic oral cyclophosphamide in a total of 44 treated participants. Its primary objectives are to evaluate changes in CD8+ T cells in peripheral blood and tumor tissue, and to evaluate the safety of DPX-E7 vaccination in HLA-A2 positive patients with incurable HPV-related head and neck, cervical or anal cancers.

DPX-E7 targets an HPV viral protein known as E7. IMV has the option to produce the DPX-E7 vaccine if it proves successful in the clinical trials. No formal guidance has been provided with respect to top line results.

RSV

IMV has completed pre-clinical work for a vaccine targeting RSV, which is the second leading cause of respiratory illness in infants, the elderly and the immunosuppressed. Currently, there is no vaccine available for RSV and IMV is seeking to develop a novel vaccine formulation to be used in elderly and healthy adults, including women of child-bearing age.

IMV has in-licensed the RSV antigen exclusively from VIB, a non-profit life sciences research institute funded by the Flemish government, to expand its pipeline of vaccine candidates. The novel RSV antigen being evaluated in DPX is based on the short hydrophobic protein present at low levels on the surface of the RSV virion but more importantly also present on the surface of RSV infected cells. This vaccine has a unique MOA, in that the resultant antibodies bind to and destroy infected cells rather than directly bind to and neutralize free virus.

A Phase 1 clinical study has been conducted in Canada with IMV's RSV vaccine in healthy adults. The RSV vaccine is formulated in IMV's proprietary DPX platform and is initially being developed to protect the elderly population from infection. The Phase 1 study, which was the first clinical trial of a DPX-based vaccine in an infectious disease indication, has evaluated the safety and immune response profile of the RSV vaccine candidate in 40 healthy older adult volunteers (age 50-64 years) and two dose cohorts, with 20 subjects in each cohort.

In July 2016, IMV announced positive interim results from this trial, where the company analyzed the safety and immune response data of all participants up to study day 84. The safety analysis indicated that DPX-RSV was well tolerated among all study participants, with no SAEs recorded. Furthermore, immunogenicity data supported DPX-RSV's ability to generate a relevant immune response; the vaccine candidate obtained antigen-specific antibody responses in 75% of subjects vaccinated with the lower dose and 100% of those vaccinated with the higher dose. Positive top line data was disclosed in October 2016, where the company disclosed that after more than nine months following the last vaccination, 15 of 16 participants (93%) who received DPX-RSV demonstrated antigen-specific immune responses. The vaccine candidate also continued to have a positive safety profile and was well tolerated with no SAEs among all study participants.

On April 12, 2017, IMV announced additional positive data from an extended evaluation of patients in this trial. An amendment had been submitted to Health Canada to test subjects who received the higher dose of vaccine out to one year after the booster vaccination. In the 25µg dose cohort, which was the only dose tested out to one year, 100% of older adults (7/7 immune responders) vaccinated with DPX-RSV maintained the antigen-specific immune responses one year after receiving the booster dose. At one year, the antibody levels measured were still at peak with no sign of decrease.

On September 27, 2018, IMV announced results of ongoing research to further explore the novel MOA of its vaccine candidate. New data from a preclinical study highlighted the effects of two potential approaches to preventing RSV, comparing a single dose bovine version of DPX-RSV to a two-dose conventional investigational bovine RSV vaccine. IMV's vaccine candidate yielded strong antigen-specific immune responses and a protective effect on disease pathology. The degree of

protection was comparable between the two vaccine candidates. In this study, the company compared the effects of both the IMV and conventional RSV vaccine approaches among bovines with known RSV infections (the bovine animal model is considered an optimal model of RSV infection). One dose of DPX-bRSV was administered to one cohort; the second received two doses of a subunit RSV bovine vaccine. Immune response was evaluated with an antibody titer test, and disease pathology was assessed with a lung lesion score and other clinical parameters (such as body temperature changes). IMV found SH antibodies in 14 of the 15 subjects that received DPX-bRSV, and the improvements observed in disease pathology were comparable between the two cohorts. These were the first bovine animal health data to directly correlate the vaccine-induced immune response against IMV's novel RSV target – the SH viral protein – with measures of disease protection.

Conventional RSV vaccine candidates target either the F or G proteins of the virus providing protection by neutralizing the RSV virus. Clinical measures of efficacy focus on the amount of neutralizing antibodies in the bloodstream. DPX-RSV works differently; it targets the SH viral ectodomain of the RSV virus, and, instead of neutralizing the virus, it enables the immune system to recognize and destroy infected cells. Since there are no neutralizing antibodies resulting from the DPX-RSV MOA, a different clinical assessment is required to determine the vaccine candidate's protective effect. IMV has exclusive worldwide licenses on applications that target the SH ectodomain antigen in RSV. The company intends to explore opportunities to out-license this product to potential partners.

Malaria

In 2016, IMV was awarded a subcontract by Leidos, a health, national security, and infrastructure solutions company, to evaluate IMV's DPX platform for the development of peptide-based malaria vaccine targets. The subcontract is funded through Leidos' prime contract from the US Agency for International Development (USAID) to provide vaccine evaluations in the preclinical, clinical and field stages of malaria vaccine development. In November 2017, an expansion of this collaboration was announced. Following the achievement of several preclinical milestones in the collaboration with USAID, Leidos and USAID selected the DPX-based platform as one of the preferred formulations for further development under a new contract extension. Under the new subcontract, the collaborators will conduct additional research that focuses on identifying the most promising target-formulation combinations.

Zoetis Collaboration

In August 2017, the corporation announced the achievement of several milestones in its ongoing collaboration with global animal health company Zoetis to develop cattle vaccines. In recent controlled studies, the IMV formulations met efficacy and duration of immunity end-points against two disease targets. These results will enable Zoetis to advance two IMV-formulated vaccine candidates into late-stage testing.

Financial Analysis & Outlook

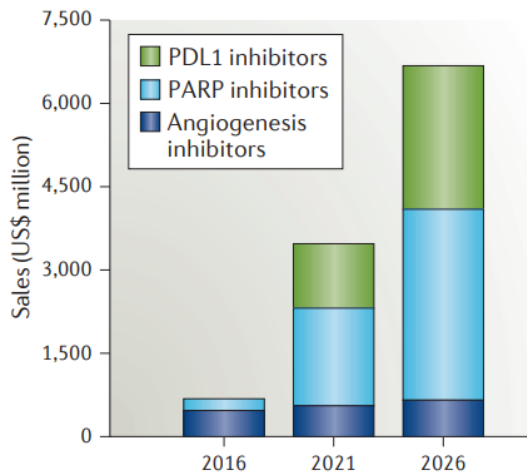
DPX-Survivac In Ovarian Cancer

Ovarian cancer is the fifth most common cause of cancer-related deaths in women, surpassing that of any other gynecological cancer. In the US alone, an estimated 22,240 new cases of ovarian cancer will be diagnosed in 2018, and an estimated 14,070 women will succumb to the disease in the same time frame. In Europe, the estimated number of new ovarian cancer cases is estimated to be 65,538 annually. Globally, ovarian cancer incidence is estimated at 239,000 new cases and 152,000 deaths annually.

A woman's lifetime risk of developing ovarian cancer is approximately 1 in 75, and her chance of dying from the disease is approximately 1 in 100. Typically, the disease presents at a late stage when the 5-year relative survival rate is only 29%. Very few cases of approximately 15% are diagnosed with localized tumor (stage 1) when the 5-year survival rate is 92%. Most strikingly, the overall 5-year relative survival rate generally ranges between 30-45% across the globe and has seen only very modest increases (2%-4%) since 1995 despite advances in therapeutic options.

Initial treatment options for epithelial ovarian cancer include cytoreductive surgery followed by platinum and taxane chemotherapy or neoadjuvant chemotherapy followed by interval debulking surgery. Due to the late stage at time of diagnosis, and few treatment options for patients who develop resistance to frontline therapies, prognosis for ovarian cancer is poor. It is this significant unmet medical need that is fueling the uptake of novel therapeutic avenues such as PARP inhibitors, PD-L1 inhibitors and Angiogenesis inhibitors which in aggregate are expected to reach sales of approximately US\$6.7 bln by 2026.

Exhibit 14: Future Sales Of Ovarian Cancer Drugs



Source: Bramford et al., Nature Reviews, 2017.

Ovarian Cancer Financial Estimates

In order to derive our sales estimates for DPX-Survivac in ovarian cancer, we take a conservative approach by assuming DPX-Survivac is only approved as a follow-on treatment for 2nd, 3rd or 4th line Survivin expressing recurrent ovarian cancers. Furthermore, at present we only model commercial sales in the US and the EU, leaving out an approximate addressable population of an additional 150,000 ovarian cancer patients, rest of world.

In the US, we assume an annual ovarian cancer incidence of 22,240 as detailed above, growing 1% y/y. We assume 80% of patients are recurrent following neoadjuvant therapy or surgical intervention. Of those recurrent ovarian cancer patients, we assume 75% express Survivin (a conservative estimate) and further, that DPX-Survivac's five peptide combination provides coverage across 85% of that population. Additionally we net out the 13% patient population harboring high-grade serous tumors related to mutations in BRCA1/2 (median of 10-15%). We assume a response rate of 35% for first line adjuvant therapy and thus assume 65% of patients progress to 2nd line. Furthermore, we assume 80% of 2nd line patients progress to 3rd line and 90% of 3rd line patients progress to 4th line treatment

We assume product launch in 2022, with penetration assumptions increasingly more aggressive in each respective line, but starting at 2% in 2nd line, 4% in 3rd line and 6% in 4th line. We assume peak penetration seven years post launch, plateauing at 20% in 2nd line, 25% in 3rd line and 35% in 4th line. We model sales through to 2034. We assume a net launch price of \$85,000 per patient year for DPX-Survivac, irrespective of treatment duration (a substantial discount to an annual cycle of pembrolizumab).

For the EU, we assume a higher annual ovarian cancer incidence of 65,538 as detailed above, and assume discounted pricing of \$45,000 per patient year and penetration rates at 50% of those in the US market. All other assumptions remain as above. Taken together, our assumptions result in peak annual sales (by 2028) for DPX-Survivac in recurrent ovarian cancer of \$400 mln in the US (see Exhibit 15) and \$300 mln in the EU (see Exhibit 16).

We believe our DPX-Survivac in ovarian cancer estimates are conservative as preliminary results suggest that DPX-Survivac could indeed garner more market share in earlier lines of therapy if response rates are sustained in larger cohorts.

Exhibit 15: DPX-Survivac Ovarian Cancer US Sales Estimates

All Amounts in US\$	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Annual US OvCa Incidence	22,240	22,462	22,687	22,914	23,143	23,374	23,608	23,844	24,083	24,324	24,567	24,812	25,061
% Recurrent	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
% Survivin Expressing	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
HLA Restriction Coverage	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Pts. Progressing to 2nd line	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Less High-grade serous BRCA1/2	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Market Penetration (%)	2.0%	3.5%	5%	8%	12%	15%	20%	20%	20%	20%	20%	20%	20%
Ttl. # of Treated Patients	92	307	442	670	1,083	1,367	1,841	1,860	1,878	1,897	1,916	1,935	1,955
Net Cost per Treated Patient	\$85,000	\$86,785	\$88,607	\$90,468	\$92,368	\$94,308	\$96,288	\$98,310	\$100,375	\$102,483	\$104,635	\$106,832	\$109,076
Price Appreciation	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Net Sales (\$000s)	\$7,807	\$26,609	\$39,200	\$60,635	\$100,043	\$128,957	\$177,309	\$182,843	\$188,549	\$194,434	\$200,502	\$206,760	\$213,213
All Amounts in US\$	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2nd Line, BRCA1/2 wt Patients	4,593	4,638	4,685	4,732	4,779	4,827	4,875	4,924	4,973	5,023	5,073	5,124	5,175
% Progressing to 3rd Line	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Market Penetration (%)	4.0%	6.0%	9%	12%	15%	18%	25%	25%	25%	25%	25%	25%	25%
Ttl. # of Treated Patients	147	223	337	454	573	695	975	985	995	1,005	1,015	1,025	1,035
Net Cost per Treated Patient	\$85,000	\$86,785	\$88,607	\$90,468	\$92,368	\$94,308	\$96,288	\$98,310	\$100,375	\$102,483	\$104,635	\$106,832	\$109,076
Price Appreciation	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Net Sales (\$000s)	\$12,492	\$19,322	\$29,888	\$41,095	\$52,972	\$65,550	\$93,883	\$96,813	\$99,835	\$102,950	\$106,163	\$109,477	\$112,894
All Amounts in US\$	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
3rd Line, BRCA1/2 wt Patients	3,674	3,711	3,748	3,785	3,823	3,861	3,900	3,939	3,978	4,018	4,058	4,099	4,140
% Progressing to 4th Line	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Market Penetration (%)	6.0%	9.0%	14%	18%	25%	32%	35%	35%	35%	35%	35%	35%	35%
Ttl. # of Treated Patients	198	301	472	613	860	1,112	1,229	1,241	1,253	1,266	1,278	1,291	1,304
Net Cost per Treated Patient	\$85,000	\$86,785	\$88,607	\$90,468	\$92,368	\$94,308	\$96,288	\$98,310	\$100,375	\$102,483	\$104,635	\$106,832	\$109,076
Price Appreciation	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Net Sales (\$000s)	\$16,864	\$26,085	\$41,844	\$55,478	\$79,457	\$104,880	\$118,292	\$121,984	\$125,791	\$129,717	\$133,766	\$137,941	\$142,246
Total Revenue to IMV (000s)	\$37,163	\$72,017	\$110,931	\$157,207	\$232,472	\$299,387	\$389,484	\$401,640	\$414,175	\$427,102	\$440,432	\$454,178	\$468,352

Source: Raymond James Ltd.

Exhibit 16: DPX-Survivac Ovarian Cancer EU Sales Estimates

All Amounts in US\$	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Annual EU OvCa Incidence	65,538	66,193	66,855	67,524	68,199	68,881	69,570	70,266	70,968	71,678	72,395	73,119	73,850
% Recurrent	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
% Survivin Expressing	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
HLA Restriction Coverage	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Pts. Progressing to 2nd line	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Less High-grade serous BRCA1/2	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Market Penetration (%)	1.0%	1.8%	2.5%	3.8%	6.0%	7.5%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Ttl. # of Treated Patients	135	452	652	988	1,596	2,015	2,713	2,740	2,768	2,795	2,823	2,852	2,880
Net Cost per Treated Patient	\$45,000	\$45,945	\$46,910	\$47,895	\$48,901	\$49,928	\$50,976	\$52,047	\$53,140	\$54,256	\$55,395	\$56,558	\$57,746
Price Appreciation	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Net Sales (\$000s)	\$6,090	\$20,757	\$30,578	\$47,298	\$78,039	\$100,593	\$138,310	\$142,626	\$147,078	\$151,668	\$156,402	\$161,283	\$166,317
All Amounts in US\$	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2nd Line, BRCA1/2 wt Patients	13,534	13,669	13,806	13,944	14,083	14,224	14,366	14,510	14,655	14,801	14,950	15,099	15,250
% Progressing to 3rd Line	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Market Penetration (%)	2.0%	3.0%	4.5%	6.0%	7.5%	9.0%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Ttl. # of Treated Patients	217	328	497	669	845	1,024	1,437	1,451	1,465	1,480	1,495	1,510	1,525
Net Cost per Treated Patient	\$45,000	\$45,945	\$46,910	\$47,895	\$48,901	\$49,928	\$50,976	\$52,047	\$53,140	\$54,256	\$55,395	\$56,558	\$57,746
Price Appreciation	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Net Sales (\$000s)	\$9,744	\$15,072	\$23,314	\$32,056	\$41,320	\$51,132	\$73,233	\$75,519	\$77,876	\$80,306	\$82,813	\$85,397	\$88,063
All Amounts in US\$	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
3rd Line, BRCA1/2 wt Patients	10,827	10,935	11,044	11,155	11,266	11,379	11,493	11,608	11,724	11,841	11,960	12,079	12,200
% Progressing to 4th Line	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Market Penetration (%)	3.0%	4.5%	7.0%	9.0%	12.5%	16.0%	17.5%	17.5%	17.5%	17.5%	17.5%	17.5%	17.5%
Ttl. # of Treated Patients	292	443	696	904	1,267	1,639	1,810	1,828	1,847	1,865	1,884	1,902	1,921
Net Cost per Treated Patient	\$45,000	\$45,945	\$46,910	\$47,895	\$48,901	\$49,928	\$50,976	\$52,047	\$53,140	\$54,256	\$55,395	\$56,558	\$57,746
Price Appreciation	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Net Sales (\$000s)	\$13,155	\$20,348	\$32,640	\$43,276	\$61,981	\$81,811	\$92,274	\$95,154	\$98,124	\$101,186	\$104,344	\$107,601	\$110,959
Total Revenue to IMV (000s)	\$28,989	\$56,177	\$86,532	\$122,629	\$181,340	\$233,536	\$303,817	\$313,299	\$323,077	\$333,160	\$343,558	\$354,281	\$365,338

Source: Raymond James Ltd.

DPX-Survivac In DLBCL

Diffuse Large B-Cell Lymphoma (DLBCL) is the most common type of Non-Hodgkin Lymphoma (NHL), accounting for approximately 40% of all cases. To put this into perspective, as of 2015 there were an estimated 686,042 people living with NHL in the US, with an annual incidence of approximately 74,680 new cases expected. Similarly across Europe, there are an estimated 1.05 mln people living with NHL with an estimated annual incidence of approximately 115,000.

Approximately 60% of DLBCL patients are cured using standard chemotherapy that includes monoclonal anti-CD20 antibody (rituximab), cyclophosphamide, doxorubicin, vincristine, and prednisone (R-CHOP). However, 30-40% of DLBCL patients will develop relapse or have refractory disease that cannot be cured with the standard R-CHOP therapy, indicating the need for more effective therapies for this patient subset.

DLBCL Financial Estimates

In order to derive our sales estimates for DPX-Survivac in DLBCL, we assume DPX-Survivac is utilized as a follow on therapeutic in 2nd and 3rd line. Similar to ovarian cancer, we only model commercial sales in the US and the EU.

In the US, we assume an current prevalence of 686,042 NHL cases of which 40% are assumed to be DLBCL, growing 1% y/y. We assume 60% DLBCL patients express Survivin and further, that DPX-Survivac's five peptide combination provides coverage across 85% of that population. We assume a response rate of 60% for first line adjuvant therapy and thus assume 40% of patients progress to 2nd line. Furthermore, we assume 80% of 2nd line patients progress to 3rd line.

We assume product launch in 2022, with penetration assumptions increasingly more aggressive in each respective line, but starting at 2% in 2nd line and 4% in 3rd line. We assume a net launch price of \$85,000 per patient year for DPX-Survivac, irrespective of treatment duration.

For the EU, we assume a higher annual NHL prevalence of 1,050,000, and assume discounted pricing of \$45,000 per patient year. Penetration is 50% that of in the US market. Taken together, our assumptions result in peak annual sales (by 2028) for DPX-Survivac in DLBCL of \$2.5 bln (see Exhibit 17).

Exhibit 17: DPX-Survivac in DLBCL Across The US & EU

All Amounts in US\$	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
US NHL Prevalence	686,042	692,902	699,831	706,830	713,898	721,037	728,247	735,530	742,885	750,314	757,817	765,395	773,049
% DLBCL	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
% Survivin Expressing	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
HLA Restriction Coverage	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Pts. Progressing to 2nd line	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
Market Penetration (%)	2.0%	3.5%	5%	8%	12%	15%	20%	20%	20%	20%	20%	20%	20%
Ttl. # of Treated Patients	1,120	2,328	3,359	5,089	8,224	10,383	13,982	14,122	14,263	14,406	14,550	14,696	14,843
Net Cost per Treated Patient	\$85,000	\$86,785	\$88,607	\$90,468	\$92,368	\$94,308	\$96,288	\$98,310	\$100,375	\$102,483	\$104,635	\$106,832	\$109,076
Price Appreciation	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Net Sales (\$000s)	\$95,168	\$202,049	\$297,649	\$460,409	\$759,645	\$979,192	\$1,346,336	\$1,388,355	\$1,431,686	\$1,476,369	\$1,522,446	\$1,569,962	\$1,618,960
All Amounts in US\$	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2nd Line, DLBCL Patients	55,981	56,541	57,106	57,677	58,254	58,837	59,425	60,019	60,619	61,226	61,838	62,456	63,081
% Progressing to 3rd Line	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Market Penetration (%)	4.0%	6.0%	9%	12%	15%	18%	25%	25%	25%	25%	25%	25%	25%
Ttl. # of Treated Patients	1,791	2,714	4,112	5,537	6,990	8,472	11,885	12,004	12,124	12,245	12,368	12,491	12,616
Net Cost per Treated Patient	\$85,000	\$86,785	\$88,607	\$90,468	\$92,368	\$94,308	\$96,288	\$98,310	\$100,375	\$102,483	\$104,635	\$106,832	\$109,076
Price Appreciation	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Net Sales (\$000s)	\$152,268	\$235,531	\$364,323	\$500,925	\$645,698	\$799,020	\$1,144,386	\$1,180,102	\$1,216,933	\$1,254,914	\$1,294,079	\$1,334,468	\$1,376,116
All Amounts in US\$	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
EU NHL Prevalence	1,050,000	1,060,500	1,071,105	1,081,816	1,092,634	1,103,561	1,114,596	1,125,742	1,137,000	1,148,370	1,159,853	1,171,452	1,183,166
% DLBCL	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
% Survivin Expressing	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
HLA Restriction Coverage	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Pts. Progressing to 2nd line	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
Market Penetration (%)	1.0%	1.8%	2.5%	3.8%	6.0%	7.5%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Ttl. # of Treated Patients	857	1,782	2,571	3,895	6,294	7,946	10,700	10,807	10,915	11,024	11,135	11,246	11,358
Net Cost per Treated Patient	\$45,000	\$45,945	\$46,910	\$47,895	\$48,901	\$49,928	\$50,976	\$52,047	\$53,140	\$54,256	\$55,395	\$56,558	\$57,746
Price Appreciation	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Net Sales (\$000s)	\$38,556	\$81,857	\$120,589	\$186,529	\$307,760	\$396,707	\$545,451	\$562,475	\$580,029	\$598,132	\$616,800	\$636,050	\$655,901
All Amounts in US\$	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2nd Line, DLBCL Patients	85,680	86,537	87,402	88,276	89,159	90,051	90,951	91,861	92,779	93,707	94,644	95,590	96,546
% Progressing to 3rd Line	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Market Penetration (%)	2.0%	3.0%	4.5%	6.0%	7.5%	9.0%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Ttl. # of Treated Patients	1,371	2,077	3,146	4,237	5,350	6,484	9,095	9,186	9,278	9,371	9,464	9,559	9,655
Net Cost per Treated Patient	\$45,000	\$45,945	\$46,910	\$47,895	\$48,901	\$49,928	\$50,976	\$52,047	\$53,140	\$54,256	\$55,395	\$56,558	\$57,746
Price Appreciation	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Net Sales (\$000s)	\$61,690	\$95,422	\$147,601	\$202,943	\$261,596	\$323,713	\$463,633	\$478,103	\$493,025	\$508,412	\$524,280	\$540,643	\$557,516
Total Revenue to IMV (000s)	\$247,436	\$437,580	\$661,972	\$961,333	\$1,405,343	\$1,778,212	\$2,490,722	\$2,568,458	\$2,648,619	\$2,731,283	\$2,816,526	\$2,904,430	\$2,995,077

Source: Raymond James Ltd.

Valuation & Recommendation

SOTP Valuation Best Captures IMV's Value

IMV is a clinical stage biopharmaceutical company with a platform technology applicable to multiple indications. IMV's lead clinical candidate, DPX-Survivac, is currently being evaluated in combination with other therapeutics in ovarian cancer, DLBCL and soon to be other Survivin expressing cancers. As such, we believe the most appropriate valuation methodology to capture the inherent value of IMV's multiple clinical endeavors is through a probability adjusted, net present value, sum of the parts, analysis largely driven by the TAM of their target indications and our assumed market penetration in those indications. While IMV is currently evaluating DPX's application in a number of indications, we only currently attribute value to IMV's lead formulation, DPX-Survivac in ovarian cancer and DLBCL, where the company has generated preliminary evidence of anti-tumor activity.

DPX-Survivac In Ovarian Cancer Accounts For \$4.51 Per Share

As illustrated above, we currently only account for DPX-Survivac US and EU sales from its use in 2nd, 3rd, and 4th line recurrent, Survivin expressing ovarian cancer therapy. We assume DPX-Survivac gains FDA and EMA regulatory approval in 2021 and is launched in 2022. We model out sales to 2034. We assume a 30% FCF margin on sales, and discount FCFs back utilizing a 10% discount rate to arrive at our aggregate DPX-Survivac NPV in ovarian cancer. Further, we probability adjust our NPV value at 30% to account for the likelihood of DPX-Survivac clinical success based on its current phase and results presented to date. Notably, our assumed 30% probability of success is a 50% discount to the conditional probability of a Phase I oncology asset progressing to Phase II, however is a premium to the 6% conditional probability to approval. We believe our bullish probability assumption is warranted due to: 1) the preliminary anti-tumor efficacy demonstrated to date by IMV relative to competing therapeutics of its class, and 2) the fact that we only model out a fraction of the commercial potential of this asset, negating ex-US and ex-EU rest of world sales. Our valuation results in a per share value of \$4.51.

Exhibit 18: Valuation Of DPX-Survivac In Ovarian Cancer

US\$MM (except per share)	
Discount rate	10%
PV of DPX-Survivac US FCF (\$000's)	\$396.62
PV of DPX-Survivac EU FCF (\$000's)	\$309.38
Probability of Success	30%
Probability Discounted Aggregate FCF	\$211.80
IMV FD S/O	46.95
DPX-Survivac, OvCa, Per Share Value	\$4.51

Source: Raymond James Ltd.

DPX-Survivac In DLBCL Accounts For \$5.30 Per Share

Similar to ovarian cancer, we currently only account for DPX-Survivac US and EU sales from its use in 2nd and 3rd, DLBCL therapy. We assume DPX-Survivac gains FDA and EMA regulatory approval in 2021 and is launched in 2022. We model out sales to 2034. We assume a 30% FCF margin on sales, and discount FCFs back utilizing a 10% discount rate to arrive at our aggregate DPX-Survivac NPV in DLBCL. Further, unlike ovarian cancer, we probability adjust our NPV value at 10% to account for what is to date extremely preliminary results, which we expect will be elaborated on in early 2019. Our valuation results in a per share value of \$5.30.

Exhibit 19: Valuation of DPX-Survivac in DLBCL

US\$MM (except per share)	
Discount rate	10%
PV of DPX-Survivac US & EU FCF (\$000's)	\$2,490.54
Probability of Success	10%
Probability Discounted Aggregate FCF	\$249.05
IMV FD S/O	46.95
DPX-Survivac, DLBCL, Per Share Value	\$5.30

Source: Raymond James Ltd.

Initiating With An Outperform, US\$10.00 Per Share Target

We are initiating on IMV with an Outperform recommendation and an US\$10.00 per share target (rounded down from \$10.09) based on our probability adjusted, net present value, sum-of-the-parts model. The remainder of our target valuation not detailed above is our per share cash allocation, accounting for \$0.27 of our aggregate target. While it is early days for IMV, anti-tumor efficacy in ovarian cancer specifically has been encouraging. Furthermore, DPX's ability to drive tumor infiltrating lymphocytes, in our view, has broad applicability across multiple tumor types. Looking forward, we anticipate multiple value creating events through future data readouts from DPX-Survivac in both ovarian cancer and DLBCL.

Exhibit 20: Summary Of SOTP Valuation

SOTP Valuation Summary	
DPX-Survivac; OvCa	\$4.51
DPX-Survivac; DLBCL	\$5.30
Net Cash	\$0.27
Per Share Target Price	\$10.09

Source: Raymond James Ltd.

Intellectual Property

IMV's intellectual property portfolio relating to its DPX delivery technology includes sixteen patent families, the first of which contains eight patents issued in five jurisdictions (US, Europe, Canada, Japan and Australia). The fifteen other families collectively contain thirty-seven patents issued in ten jurisdictions (US, Europe, Canada, Australia, Japan, India, Israel, Singapore, China and separately Hong Kong) and fifty pending patent applications in eleven jurisdictions. Taking into account the validations of the European patents, IMV's IP portfolio includes seventy-five patents. These patents, together with the other pending applications if allowed, extend patent protection for some or all DepoVax-based compositions, and/or uses thereof, approximately up to the year 2037. The latest published PCT application covers DepoVax compositions comprising neoantigens, methods for their preparation and uses thereof in the treatment of cancer.

Appendix: Financial Statements

Exhibit 21: IMV Income Statement

Fiscal YE Dec. 31 (US\$000s, except where noted)	2016A	2017A	2018E				2018E	2019E
			1QA	2QA	3QA	4QE		
Revenue								
Interest income	79	189	69	112	119	-	300	-
Milestone/subcontract revenue	130	-	27	17	6	-	50	-
Total Revenue	\$209	\$189	\$96	\$129	\$125	\$-	\$350	\$-
Operating Expenses								
Research & Development	4,172	5,905	1,882	2,605	3,897	4,306	12,690	16,497
General & Admin.	3,559	5,203	921	2,046	1,923	2,046	6,936	7,976
Business dev. & IR	678	1,221	369	594	426	594	1,983	2,181
EBITDA	\$ (8,095)	\$ (12,001)	\$ (3,034)	\$ (5,059)	\$ (6,015)	\$ (6,799)	\$ (20,907)	\$ (26,031)
Amortization of intang.	12	-	-	-	-	-	-	-
Depreciation of P&E	93	140	42	57	106	147	352	624
EBIT	\$ (8,200)	\$ (12,141)	\$ (3,076)	\$ (5,116)	\$ (6,121)	\$ (6,946)	\$ (21,259)	\$ (26,655)
Govt. assistance	(1,005)	(1,078)	(275)	(189)	(404)	-	-	-
Impairment loss	195	-	-	-	-	-	(892)	-
Accreted interest	1,506	966	266	269	270	-	2,450	-
EBT	\$(8,896)	\$(12,028)	\$(3,067)	\$(5,196)	\$(5,987)	\$(6,946)	(21,196)	(26,655)
Income tax expense	-	-	-	-	-	-	-	-
Net Income / (Loss)	\$(8,896)	\$(12,028)	\$(3,067)	\$(5,196)	\$(5,987)	\$(6,946)	\$(21,196)	\$(26,655)
Weighted Average S/O								
Basic	41,595	41,595	41,595	43,002	44,923	44,923	44,923	44,968
Fully Diluted	101,129	123,702	41,595	43,002	44,923	44,923	44,923	44,923
Earnings Per Share								
Basic	\$(0.21)	\$(0.29)	\$(0.07)	\$(0.12)	\$(0.14)	\$(0.15)	\$(0.48)	\$(0.59)
Fully Diluted	\$(0.09)	\$(0.10)	\$(0.07)	\$(0.12)	\$(0.14)	\$(0.20)	\$(0.53)	\$(0.59)

Source: IMV Inc., Raymond James Ltd.

Exhibit 22: IMV Historical Balance Sheet

Fiscal YE Dec. 31 (US\$000s, except where noted)	2016A	2017A	2018A		
			1QA	2QA	3QA
ASSETS					
Current Assets					
Cash & cash equivalents	\$13,547	\$14,909	\$24,019	\$25,148	\$20,271
Amounts receivable	269	261	\$444	909	657
Prepaid expenses	469	838	\$1,060	1,742	1,423
Investment tax credits	500	461	\$719	523	920
Total current assets	14,785	16,469	\$26,242	28,322	23,271
Non-Current Assets					
Property & equipment	316	563	\$662	2,225	2,942
Total Assets	\$15,101	\$17,032	\$26,904	\$30,547	\$26,213
LIAB. & SHAREHOLDERS' EQUITY					
Current Liabilities					
AP and accr. liabilities.	\$1,705	\$2,760	\$2,094	\$4,248	\$4,565
Amounts due to directors	40	21	\$17	22	42
CP of LTD	58	61	\$61	62	92
Lease obligation	-	-	\$14	31	87
Total Current Liabilities	1,803	2,842	\$2,186	4,363	4,786
Non-current Liabilities					
Lease obligation	-	-	\$72	1,355	1,332
Deferred share units	224	1,371	\$1,260	1,292	1,584
Long-term debt	6,090	6,476	\$6,725	6,977	7,401
Total Liabilities	8,118	10,689	\$10,243	13,987	15,103
Total Shareholders' Equity	6,983	6,343	\$16,661	16,560	11,110
Total Liabs., & Share. Equity	\$15,101	\$17,032	\$26,904	\$30,547	\$26,213

Source: IMV Inc., Raymond James Ltd.

Exhibit 23: IMV Historical Cash Flow Statement

Fiscal YE Dec. 31 (\$000s, except where noted)	2016A	2017A	2018A		
			1QA	2QA	3QE
Operating Activities					
Net Loss	\$(8,896)	\$(12,028)	\$(3,067)	\$(5,196)	\$(5,991)
Non-Cash Adjustments:					
Amortization of intang. Assets	12	\$-	\$-	-	-
Interest on lease	-	\$-	\$3	14	38
Depreciation of P&E	93	\$140	\$42	57	106
Impairment loss on intang.	195	\$-	\$-	-	-
SBC	813	\$571	\$143	353	339
Deferred share unit comp.	224	\$1,147	\$(111)	224	292
Accreted interest	1,506	\$966	\$-	-	-
Revaluation of LTD	-	\$(506)	\$266	270	270
Loss/(gain) on disposal of assets	-	\$-	\$-	-	8
Changes in Op. Working Cap.					
Accounts Receivables	60	\$8	\$(183)	82	(295)
Prepaid expenses	(242)	\$(369)	\$(222)	(682)	319
Investment tax credits	549	\$39	\$(258)	196	(397)
Accounts payable	(204)	\$1,055	\$(666)	1,607	205
Amounts due to directors	(17)	\$(19)	\$(4)	5	20
Deferred revenue	(139)	\$-	\$-	-	-
Cash Prov. By / (Used In) Op. Act.	\$(6,047)	\$(8,995)	\$(4,057)	\$(3,070)	\$(5,086)
Financing Activities					
Issuance of share cap. & warrants	16,003	\$10,000	\$14,375	-	-
Share & warrant issuance cost	\$(1,252)	\$(990)	\$(1,148)	\$-	\$-
Exercise of stock options	\$200	\$109	\$15	\$171	\$202
Exercise of warrants	\$47	\$1,698	\$-	\$4,477	\$-
Incentive contribution from lessor	\$-	\$-	\$-	\$-	\$896
Proceeds from LTD	\$936	\$-	\$-	\$-	\$200
Repayment of lease	\$-	\$-	\$(3)	\$(6)	\$(5)
Redemption of DSUs	\$-	\$-	\$-	\$(97)	\$-
Repayment of LTD	\$(71)	\$(72)	\$(18)	\$(16)	\$(16)
Cash Prov. By / (Used in) Fin. Act.	\$15,862	\$10,744	\$13,221	\$4,529	\$1,277
Investing Activities					
Acq. Of P&E	(111)	\$(387)	\$(54)	(679)	(733)
Proceeds from sale	-	\$-	\$-	-	14
Incentive contribution	-	\$-	\$-	349	(349)
Cash Used in Investment Activities	\$(111)	\$(387)	\$(54)	\$(330)	\$(1,068)
Effect of FX on cash & cash equiv.	-	\$-	\$-	-	-
Change in cash & cash equiv.	9,704	\$1,362	\$9,110	1,129	(4,877)
Cash & Equiv., Beginning of Period	3,842	\$13,547	\$14,909	24,019	25,148
Cash & Equiv., End of Period	\$13,547	\$14,909	\$24,019	\$25,148	\$20,271

Source: IMV Inc., Raymond James Ltd.

Appendix: Select Management & Directors

Frederic Ors, Chief Executive Officer & Director

Mr. Ors has served as CEO since April 2016. Mr. Ors brings more than 20 years of experience in the biopharmaceutical industry to the company, having served in a number of management roles. Before joining IMV, Mr. Ors spent 14 years at Medicago, most recently as VP of Business Development and Strategic Planning. He had been an integral part of Medicago's success, including securing more than C\$300 mln in non-dilutive funding in revenues and future milestones from licensing agreements and government contracts, and the C\$357 mln deal acquisition by Mitsubishi Pharma in 2013. Mr. Ors served as second Vice-Chair of the Vaccine Industry Committee of Biotech Canada between 2012 and 2016. Prior to Medicago, he was licensing manager at the University Paris VII-Denis Diderot, one of the largest science and medical University in France. He has a BSc degree in Biology and a Master degree in Management from the University of Angers (France).

Pierre Labbé, Chief Financial Officer

Mr. Labbé brings more than 25 years of progressive financial leadership roles in various industries. Prior to joining IMV, he was VP and CFO of Leddartech Inc. His experience in the life sciences sector includes serving as CFO and secretary of Medicago Inc. until the completion of the privatization of Medicago Inc., following the acquisition by Mitsubishi Pharma for an enterprise value of C\$357 mln in 2013. In his career as Senior Financial Officer, he has participated in the development of strategic plans, financing and in mergers and acquisitions (over C\$1 bln in transactions). Mr. Labbé is also a Director of Osisko Gold Royalties Ltd and Agility Health Inc. He holds a Bachelor's Degree in Business Administration and a license in accounting from Université Laval, Québec City. Mr. Labbé is a member of Ordre des comptables professionnels agréés du Québec, the Chartered Professional Accountants of Canada and the Institute of Corporate Directors.

Gabriela Nicola Rosu, MD., Chief Medical Officer

Dr. Rosu brings more than 20 years of medical and pharmaceutical experience to her tenure at IMV. Prior to IMV, she was most recently a Medical Science Liaison for Janssen Inc., responsible for implementing the medical strategy at the regional level. Previously, she served as a Global Medical Advisor in hematology for Novo Nordisk, where she actively participated in developing the global medical strategy and clinical development plans for multiple compounds. Her duties also encompassed overseeing clinical trials' planning and publications for early development-phase compounds, as well as regulatory filing support and post-approval commitments for late-stage candidates and marketed products.

Dr. Rosu has previous experience at companies including Berlex, Celgene, Novo Nordisk, Lundbeck, where she gained exposure to several therapeutic areas, including hematology and oncology. Dr. Rosu graduated from the University of Medicine and Pharmacy Gr.T. Popa in her native country, Romania. Following graduation and internship, she practiced as a family and emergency physician in Iasi, Romania, for five years.

Andrew Sheldon, Chairman

Mr. Sheldon brings 30 years of experience in the pharmaceutical industry and was named CEO of the Year by the Vaccine Industry Excellence awards at the World Vaccine Congress in April 2012. He is the head of Medicago New Ventures and was formerly President and Chief Executive Officer of Medicago Inc. Before joining Medicago Inc. in 2003, Mr. Sheldon served as Vice President, Sales and Marketing, of Shire Biologics and as General Manager of Rhône Merieux Canada. Mr. Sheldon is also the Board Chairman of Quebec International in the Québec City region. Mr. Sheldon has a Bachelors degree in agricultural sciences from the Université Laval, Québec City, and a bachelor's of science degree with honors in biological sciences from the University of East Anglia, in Norwich, England.

Risks

Financing Risk

IMV has no commercial product revenues (aside from sporadic milestone/subcontract revenue and interest income payments), and as such is expected to continue to accumulate a loss from operations for the near-term. Should market dynamics turn unfavourable resulting in IMV losing access to capital in the public markets, there is risk of insolvency. Furthermore, we anticipate that IMV will, from time to time, issue equity to raise capital, and thus investors should be aware of dilution risk.

Competition Risk

IMV's lead development efforts are in a therapeutic area which we believe to be highly competitive; namely, oncology. There are a number of companies that are clinically advanced relative to IMV developing immunotherapies for IMV's target indications. Competition that could jeopardize IMV's ability to penetrate specific patient populations would materially impact the value of IMV equity.

Regulatory Risk

Currently IMV has yet to have an asset reach the NDA/BLA phase of the regulatory process. We note that even if IMV successfully completes all clinical trials leading up to a regulatory filing, there is no guarantee that their application will be approved.

Pricing/Reimbursement Risk

While oncology drugs, and particularly orphan therapeutics, have enjoyed a degree of pricing inelasticity, increased scrutiny on drug costs could impair IMV's ability to command a pricing level in line with our estimates. Furthermore, the degree of flexibility in pricing DPX-Survivac may be dependent on the level of efficacy demonstrated in its pivotal trials.

Key Personnel Risk

We believe a critical differentiating aspect between IMV and its competitors is the unique and differentiated skillsets held by its employees who, together encompass multiple decades of technical know-how with respect to the DPX platform. We believe IMV's future success depends on the technical and engineering expertise of its key employees, and loss of these employees could negatively alter IMV's future development endeavors.

IP Risk

Biotechnology is notorious for frequently litigious companies. IMV may become involved in lawsuits to protect or enforce its patents and trade secrets, which could be expensive, time consuming and unsuccessful, negatively impacting IMV shares.

Partnering Risk

Currently, IMV is dependent on both development and manufacturing partnerships. Any factors which could jeopardize these partnerships may be beyond the control of the company and could negatively impact IMV's development endeavors or ability to access API for clinical trials or commercial product. Such events could result in forecasted delays and would negatively impact IMV shares.

Company Citations

Company Name	Ticker	Exchange	Currency	Closing Price	RJ Rating	RJ Entity
Incyte Corporation	INCY	NASDAQ	US\$	63.59	1	RJ & Associates
Johnson & Johnson	JNJ	NYSE	US\$	146.45	2	RJ & Associates

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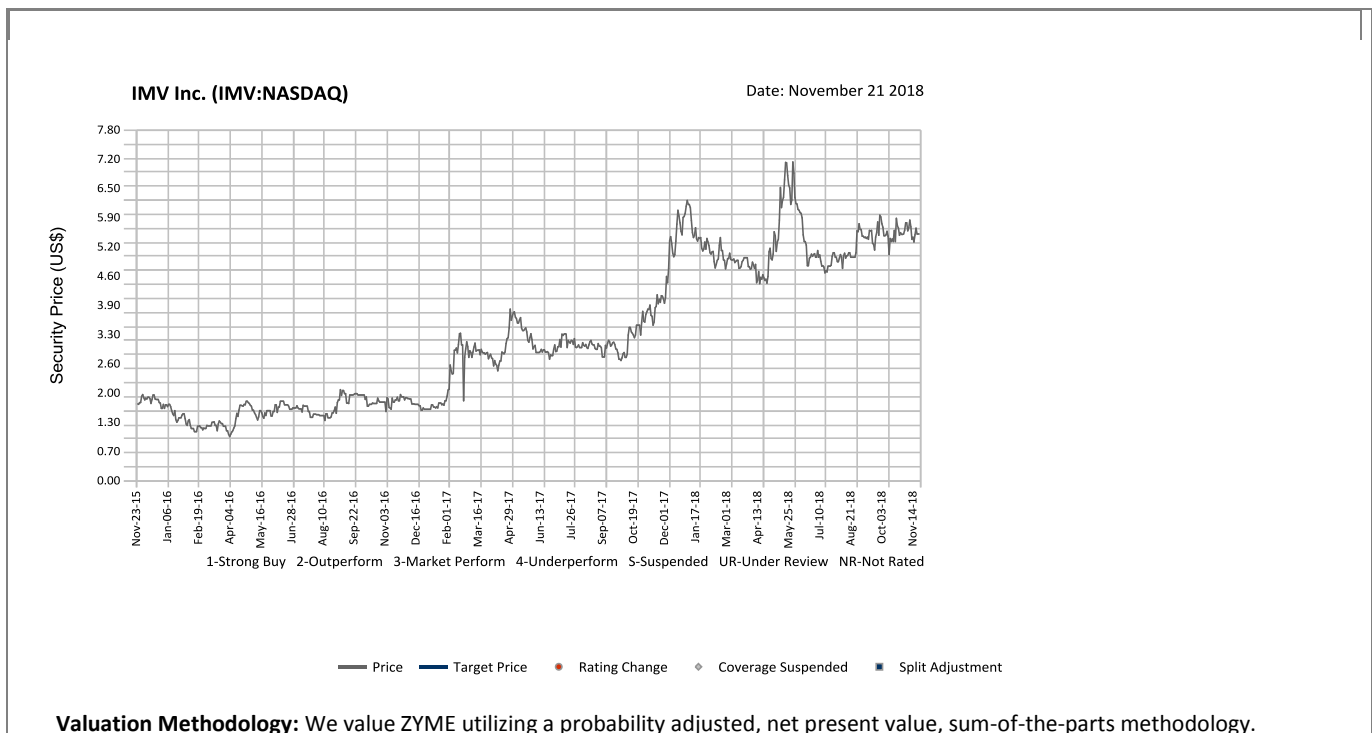
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