April 8, 2022

IMV Inc. Presents Clinical Benefit of MVP-S in Combination with Pembrolizumab in Bladder Cancer at the AACR Annual Meeting

Combination of MVP-S/CPA and pembrolizumab showed encouraging clinical activity in advanced, metastatic bladder cancer patients, particularly in patients who had received prior immune checkpoint inhibitor therapy

The combination treatment was well-tolerated with adverse events mostly grade 1 or 2

KOL discussions are ongoing to map out clinical opportunities in bladder cancer

DARTMOUTH, Nova Scotia & CAMBRIDGE, Mass.--(BUSINESS WIRE)-- IMV Inc. (NASDAQ: IMV; TSX: IMV), a clinical-stage company developing a portfolio of immune-educating therapies based on its novel DPX® platform to treat solid and hematologic cancers, today announced safety and preliminary efficacy data of the combination of the Company's lead immunotherapy candidate, maveropepimut-S (MVP-S), with pembrolizumab from a Phase 2 basket study of patients with advanced, metastatic bladder cancer. Data will be presented at a mini-symposium on Immunotherapy Combination Strategies in Clinical Trials at the American Association for Cancer Research (AACR) Annual Meeting, taking place April 8-13, 2022, in New Orleans, Louisiana.

Seventeen subjects with advanced, metastatic bladder cancer, who on average had received two prior lines of therapy, were enrolled in this arm of the Phase 2 basket study (NCT03836352) and treated with the combination of MVP-S/CPA and pembrolizumab. The preliminary results, described below, suggest that IMV's therapy may provide a well-tolerated therapeutic alternative for advanced, metastatic bladder cancer patients in need of new treatment options.

"The basket trial was designed to identify signals of clinical benefit for the combination of MVP-S/ CPA and pembrolizumab," said Jeremy Graff, Ph.D., Chief Scientific Officer at IMV Inc. "We are very encouraged to see such positive clinical results, particularly in advanced, metastatic bladder cancer patients that had already been treated with immune checkpoint inhibitors. We are now meeting with top key opinion leaders in the field to design follow-on trials to deepen our understanding of this clinical benefit."

Key Findings

- Five out of 17 subjects showed response (2 confirmed complete responses (CRs) and 3 additional partial responses);
- Three of these, including both confirmed CRs, had progressed on prior anti-PD-1/L1

therapy;
- Long-term clinical benefit was observed in several subjects as was an increase in detectable survivin-specific T cells in peripheral blood; one patient remains on treatment after 18 months;
- The combination treatment was well-tolerated, with the majority of adverse events being grade 1 or grade 2.

This presentation will be available on the conference platform and on the IMV website under the Scientific Publications & Posters section following the meeting.

Presentation details:

Safety, preliminary efficacy and pharmacodynamic (PD) analysis of maveropepimut-S, intermittent low-dose cyclophosphamide and pembrolizumab in patients with advanced, metastatic bladder cancer

Presenter: Jeremy R. Graff, Ph.D., Chief Scientific Officer at IMV
Session Title: Immunotherapy Combination Strategies in Clinical Trials
Presentation Number: CT035
Session Date and Time: Tuesday, Apr. 12, 2022, 2:30 p.m. - 4:30 p.m. CST

About IMV

IMV Inc. is a clinical-stage immuno-oncology company advancing a portfolio of therapies based on the Company's immune-educating platform: the DPX® technology. Through a differentiated mechanism of action, the DPX platform delivers instruction to the immune system to generate a specific, robust, and persistent immune response. IMV's lead candidate, maveropepimut-S (MVP-S), delivers antigenic peptides from survivin, a well-recognized cancer antigen commonly overexpressed in advanced cancers. MVP-S also delivers an innate immunity activator and a universal CD4 T cell helper peptide. These elements foster maturation of antigen presenting cells as well as robust activation of CD8 T cell effector and memory function. MVP-S treatment has been well tolerated and has demonstrated defined clinical benefit in multiple cancer indications as well as the activation of a targeted and sustained, survivin-specific anti-tumor immune response. MVP-S is currently being evaluated in clinical trials for hematologic and solid cancers, including Diffuse Large B Cell Lymphoma (DLBCL) as well as ovarian, bladder and breast cancers. IMV is also developing a second immunotherapy leveraging the DPX immune delivery platform, DPX-SurMAGE. This dual-targeted immunotherapy combines antigenic peptides for both the survivin and MAGE-A9 cancer proteins to elicit immune responses to these two distinct cancer antigens simultaneously. A Phase 1 clinical trial in bladder cancer was initiated in early 2022. For more information, visit www.imv-inc.com and connect with us on Twitter and LinkedIn.

IMV Forward-Looking Statements

This press release contains 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 use such word as "will", "may", "potential", "believe", "expect", "continue", "anticipate" and other similar terminology. Forward-looking statements are based on the estimates and opinions of management on the

date the statements are made. In the press release, such forward-looking statements include, but are not limited to, statements regarding the potential impact of the VITALIZE study and the anticipated date data from such study is available, the Company's ability to advance its development strategy, as well as the prospects, for its lead immunotherapy and its other pipeline of immunotherapy candidates. 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 press release due to risks affecting the Company, including access to capital, the successful design and completion of clinical trials and the timely receipt of all regulatory approvals to commence, and then continue, clinical studies and trials and the receipt of all regulatory approvals to commercialize its products. IMV Inc. assumes no responsibility to update forward-looking statements in this press release 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, those related to the Company's expected timeline associated with its cash runway; the Company's priorities with MVP-S and its DPX delivery platform, the potential for its delivery platform and the anticipated timing of enrollment and results for its clinical trial programs and studies as others 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.

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