

# Published Study Demonstrates the Association Between Immunovaccine's Proprietary Immune-targeted Delivery Technology and Enhanced Efficacy in Slowing Tumor Progression

## Study in the Journal of Biomedical Science Compared the Novel Mechanism of Action Underscoring the Company's Immunotherapy Program to Other Delivery Formulations

HALIFAX, Nova Scotia, Jan. 31, 2018 (GLOBE NEWSWIRE) -- Immunovaccine Inc. (TSX:IMV) (OTCQX:IMMVF), a clinical stage immuno-oncology company, today announced the publication of a preclinical study using magnetic resonance imaging (MRI) to follow cancer peptide uptake in tumor models, and to correlate this immune activation to the resulting anti-cancer T cell activity. The [\*Journal of Biomedical Science\*](#) study, titled "[Unique Depot Formed by an Oil Based Vaccine Facilitates Active Antigen Uptake and Provides Effective Tumour Control](#)," compared the mechanism of action (MOA) of Immunovaccine's platform for immunotherapeutic stimulation with other technologies.<sup>1</sup>

In the study, published on January 27, 2018, researchers tracked how the cancer peptides were trafficked from the injection site to immunogenic activation in the lymph nodes. Researchers correlated this to both activation of T cells and the ensuing efficacy to control tumor progression. They concluded that Immunovaccine's delivery technology had a fundamentally unique MOA. This MOA enabled active and prolonged immune stimulation, as well as better tumor control, as compared to other technologies examined in the study.

"These findings demonstrate why we're able to generate sustained immune system activation, and also why measuring the level of immunogenicity at a single point in time is often not predictive of anti-cancer activity," said [Marianne Stanford, Immunovaccine Vice President, Research](#) and senior author of the study. "Our approach to generating immune responses did not follow the pattern described for classical vaccines, in which a peak primary immune response rapidly subsides and requires secondary stimulation for protection. Instead, T cell activation induced by our technology is correlated with both prolonged traffic to lymph nodes, and enhanced efficacy in preventing tumor progression."

One of the key findings of the study is the fundamentally unique method by which Immunovaccine's technology delivers immune-activating agents, such as cancer peptides, to the immune system. Unlike other technologies that rely on a slow release of antigens at the site of injection, Immunovaccine's delivery formulation entraps the immuno-stimulating agents at the injection site. This 'depot' effect forces an active uptake by immune cells,

rather than a passive diffusion at the injection site. Hence, the immune-stimulating components are protected from degradation, are delivered over a prolonged period of time to antigen-presenting cells, and are actively transported to the lymph nodes.

"In this publication, we have shown that enhanced tumor control can be correlated with our unique MOA in tumor models, which provides insight as to why our technology may be able to provide anti-cancer responses that have not yet been associated with other approaches," said [Frederic Ors, Immunovaccine's Chief Executive Officer](#). "Effective T cell responses have been linked to clinical benefits of successful cancer immunotherapies. We believe that by generating a prolonged *in vivo* T cell targeted attacks on cancer cells, our technology represents a promising alternative to *ex vivo* programming of T cells, such as those associated with CAR T therapies."

Immunovaccine conducted the study in collaboration with [BIOTIC](#), a hospital-based medical imaging research centre in Halifax, Nova Scotia. Immunovaccine [previously announced findings](#) from its BIOTIC collaboration in 2015.

### **About Immunovaccine**

Immunovaccine Inc. is a clinical-stage biopharmaceutical company dedicated to making immunotherapy more effective, more broadly applicable, and more widely available to people facing cancer and infectious diseases. Immunovaccine is developing T cell-activating cancer immunotherapies based on its patented immuno-stimulating technology platform, which provides controlled and prolonged delivery of immuno-stimulating agents to the immune system.

Immunovaccine has advanced two T cell activation therapies for cancer through Phase 1 human clinical trials, and is currently conducting multiple Phase 1b and Phase 2 studies with Incyte Corporation and Merck. These studies assessing lead candidate, DPX-Survivac, as a combination therapy in ovarian cancer and diffuse large B cell lymphoma. The Company is also exploring additional applications of its platform for infectious diseases and other therapeutic areas. DPX-RSV is an innovative vaccine candidate for respiratory syncytial virus (RSV), which has recently completed a Phase 1 clinical trial. Connect at [www.imvaccine.com](http://www.imvaccine.com).

### **Immunovaccine 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 are based on the estimates and opinions of management on the date the statements are made. 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 completion of clinical trials and receipt of all regulatory approvals. Immunovaccine Inc. assumes no responsibility to update forward-looking statements in this press release except as required by law.*

### **Contacts for Immunovaccine:**

#### **MEDIA**

**Mike Beyer, Sam Brown Inc.**

T: (312) 961-2502 E: [mikebeyer@sambrown.com](mailto:mikebeyer@sambrown.com)

**INVESTOR RELATIONS**

**Pierre Labb  , Chief Financial Officer**

T: (902) 492-1819 E:[info@imvaccine.com](mailto:info@imvaccine.com)

**Patti Bank, Managing Director, Westwicke Partners**

O: (415) 513-1284

T: (415) 515-4572 E:[patti.bank@westwicke.com](mailto:patti.bank@westwicke.com)

---

<sup>i</sup> Published online, January 27, 2018. DOI: 10.1186/s12929-018-0413-9



Source: Immunovaccine Inc.