Imvax Presents Data Showing Mechanisms for Broad Immune Activation by IGV-001

- In vitro and in vivo studies indicate anti-tumor activity overcomes IL-6 via Th1 T cells -

PHILADELPHIA (November 9, 2021) — Imvax, Inc., a clinical-stage biotechnology company developing personalized, whole tumor-derived immunotherapies, today presented data showing the mechanisms by which IGV-001 produces broad immune activation at the Society for Immunotherapy of Cancer (SITC) Annual Meeting. The data from in vitro and in vivo studies highlight the effects of IGV-001 on inducing both innate and adaptive immune responses to tumor cells and point to the potential mechanism behind observed clinical activity for IGV-001 in the treatment of glioblastoma.

“These exciting mechanistic data substantiate the anti-tumor effects we’ve observed in prior clinical trials of IGV-001. The insights reported here will inform our ongoing clinical development of IGV-001 for glioblastoma, a disease in great need of effective new treatments,” said John P. Furey, Chief Executive Officer. “Importantly, these studies also underscore the potential expansion of Imvax’s approach to a wide range of solid tumors and bolster our ongoing preclinical work in hepatocellular, ovarian, pancreatic, and other cancers.”

For these in vitro studies, IGV-001 was prepared with patient tumor cells. It was then co-cultured with patient-derived peripheral blood mononuclear cells (PBMCs) to evaluate activated and memory T cell subsets and responses. These studies found an elevated percentage of activated potentially anti-tumor CD4 and CD8 T cells as well as increased central and effector memory phenotypes in both T cell subsets compared to IMV-001-treated PBMC controls. Tumor cells treated with Insulin-like Growth Factor-1 Receptor antisense ‘IMV-001’ also released significantly more ($p<0.01$) ATP than untreated or sense oligonucleotide-treated controls, suggesting immunogenic cell death.

In vivo studies were performed on C57BL/6 albino mice. Biodiffusion chambers were loaded with either IMV-001 or a saline control, plus GL261-Luc cells, irradiated and implanted into the mice’s flanks for 48 hours, similar to the combination product dosed in investigator-initiated Phase 1 studies of IGV-001 and planned for dosing in the Company’s upcoming Phase 2 clinical trial (NCT04485949). GL261-Luc intracranial tumor challenge was conducted 28 days after chamber implantation. At the termination of the study, 58 days post–intracranial tumor challenge, 59% of IGV-001-treated mice were alive and continued to gain weight, whereas all mice in the control group died by day 24 ($p<0.001$). Additionally, IGV-001-treated mice with lower tumor burden had less circulating IL-6 ($P<0.01$), pointing to a means of quantifying IGV-001’s suppression of tumor growth. Finally, Elispot assays demonstrated that mice treated with IGV-001 showed enhanced T cell IFNγ responses to tumor cell antigens, compared to controls.

About Imvax, Inc.
Imvax is a clinical-stage biotechnology company with a unique platform technology focused on delivering personalized, whole tumor-derived immunotherapies across a range of solid tumors. Imvax's portfolio includes several programs designed to stimulate a patient's immune system against the entire antigen signature of their tumor. Imvax's most advanced program is IGV-001 for the treatment of glioblastoma. Imvax is headquartered in Philadelphia, PA. For additional information, please visit www.imvax.com.

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