

# ImmunoGenesis Announces Positive Preclinical Glioblastoma and Pancreatic Cancer Data for STimulator of INterferon Genes (STING) Agonist Published in Two Scientific Journals

STING agonist can induce innate immune responses that allow the immune system to fight otherwise immunologically resistant cancers

Phase 1 canine glioblastoma veterinary trial data show the promise of STING agonist as potential future therapy for human glioblastoma

Data support the advancement of ImmunoGenesis' STING-Immune Stimulating Antibody Conjugate (ISAC) in immunologically cold tumors

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HOUSTON, Aug. 31, 2021 /PRNewswire/ -- ImmunoGenesis Inc., a clinical-stage biotechnology company developing science-driven immune therapies, announces the publication of positive data for its **ST**imulator of **IN**terferon **G**enes (STING) agonist in the treatment of canines with previously diagnosed glioblastoma (GBM), the second most common type of canine brain cancer that shares very close similarities to its human counterpart, in *Clinical Cancer Research*, a journal of the American Association for Cancer Research. The study, "Intratumoral Delivery of STING Agonist Results in Clinical Responses in Canine Glioblastoma," showed that some canines responded to the treatment with reductions in their tumor volume, including one complete response in which the tumor completely disappeared. These results support the notion that ImmunoGenesis' STING agonist has the potential to trigger a robust, innate anti-tumor immune response in humans and may be highly effective on recalcitrant tumors such as

glioblastoma. The study was conducted jointly by ImmunoGenesis, Northwestern Medicine, and the Texas A&M College of Veterinary Medicine & Biomedical Sciences' Veterinary Medical Teaching Hospital.

In addition, ImmunoGenesis announces positive preclinical data implicating STING as a potential therapeutic target for patients with immune cold tumors, including pancreatic ductal adenocarcinoma (PDAC), in the publication of "High potency STING agonists engage unique myeloid pathways to reverse pancreatic cancer immune privilege," in the *Journal for ImmunoTherapy of Cancer*. Further, data revealed that intratumoral injection of ImmunoGenesis' STING agonist into orthotopic pancreatic lesions unmasks sensitivity to checkpoint blockade, further indicating the potential of its STING agonist to help overcome immunotherapy resistance in cold tumors. This study also demonstrated that the high potency of ImmunoGenesis' STING agonist could reprogram critical elements of the tumor stroma from an immune suppressive state to a pro-inflammatory state by engaging novel mechanisms such as downregulation of the "undruggable" cMyc oncogene – a property not found in naturally occurring STING agonists.

"These two published studies show strong preclinical proof of concept of our STING agonist against cold cancers—including pancreatic and brain cancers—refractory to currently available immunotherapy," said James Barlow, ImmunoGenesis President and CEO. "We look forward to further building upon these successful results with the advancement of our STING-ISAC candidate. Delivered intravenously, our STING-ISAC has the potential to deliver STING systemically to all tumor sites, allowing us to less-invasively target a broader range of cold tumors compared to free STING agonists."

"Collectively, these non-human data of ImmunoGenesis' STING agonist indicate that it repolarizes the myeloid stroma to be immune supportive in addition to triggering a robust, innate anti-tumor response," said Dr. Amy Heimberger, scientific director of the Malnati Brain Tumor Institute of the Robert H. Lurie Comprehensive Cancer Center of Northwestern University Feinberg School of Medicine. "This further reveals the potential for ImmunoGenesis' STING agonist to be a foundational treatment in immunologically resistant cancers such as GBM."

## **Canine Study in Glioblastoma**

The investigators tested the STING agonist by injection directly into the glioblastoma of five dogs that had previously been diagnosed with the cancer. Each dog received up to two injections intratumorally at an interval of four to six weeks. MRI scans taken of the canines over the course of the trial revealed that some of the canines, even with single dose, responded to the treatment with reductions in their tumor volume, including one complete response in which the tumor completely disappeared. Funding for this study was provided by the National Institutes of Health (grant R01 NS120547), the Joan Traver Walsh Family Foundation, the Dr. Marnie Rose Foundation, the Brockman Foundation and Mr. Herb Simmons.

### **Preclinical Pancreatic Cancer Study**

The second study sought to describe how different STING agonists functionally impact the tumor microenvironment using PDAC as a model for an immunologically cold tumor. Two natural STING agonists (CDG and cGAMP) and two synthetic STING agonists (ML-RR and ImmunoGenesis' 8803) were tested, with 8803 being the most potent. Local delivery of ImmunoGenesis' 8803 STING agonist triggered proinflammatory remodeling of immune suppressive cells within the tumor microenvironment, expanded immune cell infiltration and induced tumor regression. Intratumoral administration of 8803 also augmented the response to checkpoint blockade and induced curative immunity in a multifocal PDAC model. Funding for this study was primarily provided by PanCAN.

### **About STING-ISAC**

STING-ISAC builds on ImmunoGenesis' novel platform PD-L1/PD-L2 inhibitor by conjugating a STING agonist to the antibody, combining an optimal PD-1 pathway blockade with a powerful immune agonist. ImmunoGenesis is developing this agent to effectively and systemically transport the intravenously delivered STING agonist to all tumor sites and targets within the tumor microenvironment. This therapeutic advance pushes through an important barrier seen with traditional STING agonists, which consistently produce an effect only at the site of the intratumoral injection. ImmunoGenesis' STING-ISAC, delivered intravenously, could precisely target where it is most effective across tumor sites.

### **About ImmunoGenesis, Inc.**

ImmunoGenesis is a clinical-stage biotechnology company developing science-driven immune therapies specifically designed to treat tumors lacking activated T cells or having other immune resistance mechanisms. These tumor types represent more than half of all cancers, and current immunotherapies have shown limited to no efficacy, resulting in high unmet need for efficacious therapies. For more information about the company, visit [www.immunogenesis.com](http://www.immunogenesis.com).

## **Forward-Looking Statements**

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in this press release are forward-looking statements. These forward-looking statements may be identified by terms such as "will," "could," "believe," "plan," "expect," "target," "continue," "to," and similar terms or expressions or the negative thereof. Examples of such statements include, but are not limited to, statements regarding the development and/or effectiveness of evofosfamide and the ability of evofosfamide to achieve the desired results whether as a monotherapy or in combination with other therapies. We may not actually achieve the plans, carry out the intentions or meet the expectations or objectives disclosed in the forward-looking statements. You should not place undue reliance on these forward-looking statements. These statements are subject to risks and uncertainties which could cause actual results and performance to differ materially from those discussed in the forward-looking statements. The forward-looking statements contained in this press release speak only as of the date of this press release and are based on management's assumptions and estimates as of such date. We disclaim any intent or obligation to update these forward-looking statements to reflect events or circumstances that exist after the date on which they were made.

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