ADVANTAGENE ANNOUNCES $2 MILLION NIH GRANT FOR STUDY OF ITS GMCI™ IMMUNOTHERAPY FOR PANCREATIC CANCER PATIENTS

AUBURNDALE, MA – August 3, 2018 – Advantagene, Inc., a clinical-stage biotechnology company developing novel cancer immunotherapy platforms for solid tumor treatment, announced today the award of a $2 million grant from the National Institute of Health (NIH). The grant will support further evaluation of Advantagene's proprietary Gene Mediated Cytotoxic Immunotherapy (GMCI™) in pancreatic cancer patients. "We are extremely excited to have the validation and financial backing of a NIH grant in our pursuit for an effective therapeutic option for this dreaded disease" stated Dr. Estuardo Aguilar-Cordova, Chief Executive Officer of Advantagene. "We are encouraged by early results and look forward to commence recruiting additional patients to PaTK02 later this year."

Effective therapeutics for pancreatic adenocarcinoma are desperately needed. Pancreatic cancer has a 5-year survival rate less than 5%, the lowest of all major cancers, with more than 37,000 deaths in the US each year. Although surgical resection remains the only potential curative therapy, only 10-20% of pancreatic tumors are resectable and even these have median survival of only 20-24 months. Patients with unresectable disease are treated with palliative chemotherapy and/or chemoradiation, with median survival of approximately 11 months. The current study is designed to evaluate the opportunity to improve resection and curative treatment for these patients.

Advantagene's GMCI is an approach that uses an engineered adenovirus designed to kill tumor cells and elicit a potent immune response against a patient's specific tumor by delivering the immune stimulating molecules to the tumor, creating an in-situ vaccine. It has generated significant results in multiple solid tumor types and is currently in a pivotal Phase 3 clinical study for treatment of prostate cancer patients. In pancreatic cancer, a completed Phase 1, 24-patient study (PaTK01) demonstrated safety and feasibility of 2 courses of GMCI in combination with surgery for resectable disease or 5-FU chemoradiation for locally advanced pancreatic cancer. In addition to the safety and feasibility, the clinical outcomes of PaTK01 were encouraging with a 25% response rate, a 50% 1-yr survival rate and one patient alive and progression free more than six years after treatment. This grant will support a follow-on randomized 38 patient Phase 2 study (PaTK02) that will evaluate the addition of GMCI to the current more aggressive chemoradiation regimens in patients with advanced non-metastatic pancreatic adenocarcinoma.

The hypothesis is that the addition of GMCI to standard of care chemoradiation will increase tumor cell death, stimulate immune effects, and improve clinical outcomes, as measured by resection rate, progression-free survival and overall survival. GMCI can be added to standard of care treatments without added toxicity which is critical when using these already extremely toxic treatments. Immune status will be evaluated before and after each treatment phase and compared between the control and test arms. The results of this clinical study will be crucial for advancing the promise of Gene Mediated Cytotoxic Immunotherapy for this patient population.

About Advantagene, Inc.

Advantagene is a Massachusetts based biotechnology company developing its proprietary Immuno oncology platforms including the Gene Mediated Cytotoxic Immunotherapy (GMCI™) platform technology for the treatment of solid tumors.

GMCI™ is an "off the shelf" low toxicity immunotherapy that stimulates a patient's own immune system to generate a robust response against his or her cancer, causing tumor cell death and clearance. Pre-clinical and clinical evidence strongly suggests that this immunotherapy approach synergizes with chemotherapy, radiation and surgery and produces remarkable results, including complete tumor eradication.

Advantagene is also conducting a registration clinical trial with its clinical GMCI™ candidate, ProstAtak®, for the treatment of newly diagnosed prostate cancer patients under a Special Protocol Assessment approved by the U.S. Food and Drug Administration. If proven efficacious, ProstAtak® will be the first and only therapeutic pharmaceutical available for newly diagnosed prostate cancer patients. The company is conducting additional GMCI™ clinical studies in brain cancers with impressive clinical results to date as well as pancreas and lung.

For more information about Advantagene and our GMCI™ cancer immunotherapy program, please visit www.advantagene.com.

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