



PsiOxus Therapeutics to Collaborate with the Parker Institute for Cancer Immunotherapy on Virus-Based Gene Therapy to Treat Solid Tumors

OXFORD, England and SAN FRANCISCO – Nov. 15, 2018 – PsiOxus Therapeutics, Ltd. (PsiOxus) and the [Parker Institute for Cancer Immunotherapy](#) (Parker Institute) today announced a research project to investigate the use of PsiOxus’ virus-based gene therapy for treating solid tumors that have been historically resistant to immunotherapy.

This pre-clinical immuno-oncology research will utilize PsiOxus’ proprietary T-SIGn platform. The platform uses the enadenotucirev oncolytic virus as a vector to deliver combinations of therapeutic transgenes to carcinomas to fight cancer.

In effect, the T-SIGn viruses work by turning tumor cells into “drug factories” to express gene therapy products, such as cytokines or antibodies, designed to engage the immune system to attack cancer cells.

The viruses first selectively infect and replicate only in tumor cells. The tumor cells then express the encoded genes, producing biologic therapies to alter the tumor microenvironment. Changing the tumor microenvironment is believed to enhance the activation of cancer-fighting immune cells so they can eradicate the tumor.

Working together, PsiOxus and the Parker Institute aim to build and test viruses carrying different combinations of genes.

“One of the challenges in treating solid tumors with immunotherapy is the tumor microenvironment, which is very suppressive and effectively prevents the immune system from attacking the tumor,” said Fred Ramsdell, Ph.D., vice president of research at the Parker Institute. “What is promising about the PsiOxus approach is its potential to overcome this suppression using a novel virus platform to deliver gene therapy.”

Unlike other oncolytic viruses that require direct injections to the tumor, which can be costly and complicated to administer, PsiOxus’ platform can be delivered to patients intravenously.

“Given the potential of PsiOxus’ IV-delivered cancer gene therapy platform, establishing strategic relationships with world leaders in immuno-oncology will accelerate our ability to bring gene therapy treatment to cancer patients,” said Brian Champion, Ph.D., Chief Scientific Officer of PsiOxus. “The Parker Institute is a leader in building strategic relationships between leading immuno-oncology academic and industry partners. We are thrilled to collaborate with the Parker Institute to jointly accelerate research on innovative cancer immuno-oncology therapy.”

About PsiOxus Therapeutics

PsiOxus aims to be the world's leading cancer gene therapy company, delivering medicines of value to patients with cancer. Our work is product and platform based with a focus on discovering and developing gene-based immuno-oncology therapies for the treatment of solid tumors. The T-SIGn gene therapy platform is based on the company's oncolytic virus, enadenotucirev, which has properties that allow systemic IV delivery and payload capacity to deliver genes as a viral vector. While delivered systemically, PsiOxus' T-SIGn gene therapy products act locally within the tumor micro-environment, replicating only in tumor cells. T-SIGn gene therapy products are "armed" through the addition of genes that cause the tumor to express combinations of biologics including antibodies, cytokines, immunomodulatory proteins, or nucleotides (RNA). In effect, the T-SIGn viruses turn the tumor cells into "drug factories" to express combination gene therapy. The result is a revolutionary way to deliver biological anti-cancer therapeutics that act locally within the tumor microenvironment for the treatment of cancer.

PsiOxus' first gene therapy program is partnered with Bristol-Myers Squibb and is in clinical development. PsiOxus has multiple additional preclinical gene therapy programs in development. Clinical trials are also ongoing with the unarmed enadenotucirev virus in different tumor types and in combination trials with a checkpoint inhibitor and with a chemotherapeutic.

www.psioxus.com

About Parker Institute for Cancer Immunotherapy

The Parker Institute for Cancer Immunotherapy brings together the best scientists, clinicians and industry partners to build a smarter and more coordinated cancer immunotherapy research effort.

The Parker Institute is an unprecedented collaboration between the country's leading immunologists and cancer centers. The program started by providing institutional support to six academic centers, including Memorial Sloan Kettering Cancer Center, Stanford Medicine, the University of California, Los Angeles, the University of California, San Francisco, the University of Pennsylvania and The University of Texas MD Anderson Cancer Center. The institute also provides programmatic support for top immunotherapy investigators, including a group of researchers at Dana-Farber Cancer Institute, Robert Schreiber, PhD, of Washington University School of Medicine in St. Louis, Nina Bhardwaj, MD, PhD, of the Icahn School of Medicine at Mount Sinai, Philip Greenberg, MD, of the Fred Hutchinson Cancer Research Center, and Stephen Forman, MD, of City of Hope.

The Parker Institute network also includes more than 40 industry and nonprofit partners, more than 60 labs and more than 170 of the nation's top researchers focused on treating the deadliest cancers. The goal is to accelerate the development of breakthrough immune therapies capable of turning most cancers into curable diseases. The institute was created through a \$250 million grant from The Parker Foundation.

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