

TILT Biotherapeutics Reports Publication on its Oncolytic Immunotherapy Platform in Pancreatic Cancer

Helsinki, Finland – 27 Aug 2021: TILT Biotherapeutics, a clinical-stage biotechnology company developing cancer immunotherapeutics, today announces that new preclinical data relating to the use of its oncolytic immunotherapy platform for expressing a human IL-2 variant protein has been published in *Frontiers in Immunology* (1). The paper was independently authored by researchers at the University of Helsinki (Finland) and other leading institutions, together with TILT Biotherapeutics.

The paper, entitled: “Oncolytic Adenovirus Coding for a Variant Interleukin 2 (vIL-2) Cytokine Re-Programs the Tumor Microenvironment and Confers Enhanced Tumor Control,” describes a study with TILT-452 (in the paper referred to as Ad5/3-E2F-d24-vIL2), which is a novel tumor-selective oncolytic adenovirus encoding for an improved variant of IL-2. TILT-452 was used *in vitro* and *in vivo* in a model of immunosuppressive pancreatic cancer leading to substantial intratumoral immune modulation and potent antitumor responses.

TILT-452 is constructed using the same platform as TILT’s lead asset, TILT-123, which is a 5/3 chimeric serotype adenovirus armed with two human cytokines; TNF alpha and IL-2. TILT-123 has demonstrated a 100% response rate in pre-clinical cancer models *in vivo*, and it is currently in multiple Phase 1 clinical trials (2,3) with interim data expected later this year.

The platform (Ad5/3-E2F-d24-) features unique double tumor specificity by restricting viral replication with trans-complemented mutations and a tumor-specific promoter, with transgene expression controlled by tumor-specific virus replication, allowing local and systemic administration. Moreover, the chimeric capsid from adenovirus serotype 5 that carries a knob from serotype 3 is used for increased entry into cancer cells through desmoglein 2, which is highly expressed by most malignant cells. Another advantage of using a vectored system for the protein delivery is the prolonged and spatially restricted high production in tumor lesions with minimum leakage to healthy tissues.

TILT Biotherapeutics’ CEO, Akseli Hemminki, a biotech entrepreneur and oncologist who has personally treated 300 patients with eleven different oncolytic viruses, said, “TILT-452 is a promising candidate for translation into clinical trials in human immunosuppressive solid tumors, such as pancreatic cancer and other difficult malignancies with unmet clinical need. We continue to progress this as part of our portfolio of next generation oncolytic viruses.”

The heart of TILT’s approach revolves around the use of armed oncolytic adenoviruses, using cytokines and other molecules to boost the patient’s immune response to better enable it to find and destroy cancer cells. The company is advancing its preclinical pipeline towards further clinical trials in 2023.

-Ends-

(1) Link to the [Frontiers | Oncolytic Adenovirus Coding for a Variant Interleukin 2 \(vIL-2\) Cytokine Re-Programs the Tumor Microenvironment and Confers Enhanced Tumor Control | Immunology \(frontiersin.org\)](#)

(2) Link to the ‘TUNIMO’ clinical trial details:

[TNF \$\alpha\$ and IL-2 Coding Oncolytic Adenovirus TILT-123 Monotherapy - Full Text View - ClinicalTrials.gov](#)

(3) Link to 'TUNINTIL' clinical trial details:

[TNF \$\alpha\$ and Interleukin 2 Coding Oncolytic Adenovirus TILT-123 During TIL Treatment of Advanced Melanoma - Full Text View - ClinicalTrials.gov](#)

Media contacts

TILT Biotherapeutics

CBO Aino Kalervo

aino@tiltbio.com

Scius Communications

Katja Stout

+447789435990

katja@sciuscommunications.com

About TILT Biotherapeutics

TILT Biotherapeutics is a clinical-stage biotechnology company developing cancer therapeutics based on its proprietary oncolytic adenoviruses armed with molecules including cytokines that can stimulate, or suppress, T cells. The company's patented TILT[®] technology, which can be delivered locally and systemically, modifies the tumor microenvironment and eliminates its ability to suppress immune responses to cancer, thereby enhancing T-cell therapies such as checkpoint inhibitors and CAR T therapies.

TILT's lead asset, TILT-123, is a 5/3 chimeric serotype adenovirus armed with two human cytokines; TNF alpha and IL-2. TILT-123 has demonstrated a 100% response rate in pre-clinical cancer models *in vivo*, and it is currently in Phase 1 clinical trials. The company is also developing other assets including TILT-234, TILT-452, TILT-321 and TILT-517.

Based in Helsinki, Finland, the company was established in 2013 as a spin-out from the University of Helsinki. It has funding from Lifeline Ventures, angel investors, Business Finland, and the European Innovation Council (EIC), and has ongoing collaborations with Biotheus, Merck&Co and the Merck-Pfizer Alliance.