

Transgene Receives MHRA Approval for a Clinical Trial of TG6002, a Next-generation Oncolytic Virus, Administered by Intrahepatic Artery Infusion in Patients with Colorectal Cancer with Liver Metastases

TG6002 has multiple mechanisms of action for enhanced anti-tumor activity: oncolysis, local production of chemotherapy in tumor and cell-mediated immune response

The Phase 1/2a trial is expected to start in Q4 2019

Strasbourg, France, July 18, 2019, 5:45 p.m. CET – Transgene (Euronext Paris: TNG), a biotech company that designs and develops virus-based immunotherapies for the treatment of solid tumors, today announces it has received the approval from the UK Medicines and Healthcare Products Regulatory Agency (MHRA) to proceed with a Phase 1/2a clinical trial of TG6002 administered by intrahepatic artery (IHA) infusion in colorectal cancer patients with unresectable liver metastases (CRLM).

TG6002 is a next-generation oncolytic virus (OV), which has multiple mechanisms of action. It has been engineered to combine the killing of cancer cells (oncolysis), the production of 5-FU, a widely used chemotherapeutic agent, in the tumor site, and the eliciting of an immune response against tumor cells. TG6002 expresses the proprietary FCU1 gene in the cancer cells it has infected, leading to local conversion of the pro-drug 5-FC (administered orally) into 5-FU. This is particularly important as most gastrointestinal tumors are 5-FU sensitive. TG6002 has been shown to induce both response in the primary tumor and an immune-mediated regression of distant metastases in preclinical experiments¹.

“Current systemic therapies prolong survival of CRLM patients at the cost of significant side effects. We believe that TG6002 therapy administered via an IHA infusion potentially offers an additional effective and well tolerated treatment modality for these difficult to treat patients. By administering it via the intrahepatic artery, we believe we can conveniently deliver more concentrated doses of TG6002 to the tumor, to achieve better outcomes for unresectable colorectal cancer, whilst limiting systemic exposure. In parallel, Transgene is conducting a Phase 1/2 trial to investigate TG6002 in colorectal cancer patients when given intravenously,” said **Dr. Maud Brandely, MD, PhD, Chief Medical Officer of Transgene.**

Dr. Adel Samson, MB ChB PhD, Medical Oncologist at St. James’ University Hospital, is the Chief Investigator of the trial.

This trial is a single-arm open-label Phase 1/2a trial evaluating the safety, pharmacokinetics and efficacy of repeated and ascending doses of TG6002 administered by IHA route in combination with oral 5-FC, a non-cytotoxic pro-drug that can be converted in 5-FU. The study is expected to start in Q4 2019 and could enroll up to 75 patients.

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¹ *The Enhanced Tumor Specificity of TG6002, an Armed Oncolytic Vaccinia Virus Deleted in Two Genes Involved in Nucleotide Metabolism*, J. Foloppe, et al., Molecular Therapy Oncolytics, <https://doi.org/10.1016/j.omto.2019.03.005>

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About TG6002

TG6002 is a next generation oncolytic immunotherapy. It has been designed to induce the breakdown of cancer cells (oncolysis) and allow the local production of chemotherapy (5-FU) in the tumor. TG6002 is a modified *Vaccinia* virus, with double gene deletion (TK-RR-), and expressing the proprietary FCU1 gene in the cancer cells it has infected, leading to the local conversion of the non-cytotoxic pro-drug, flucytosine (5-FC), into 5-FU, a widely used cancer chemotherapy. The oncolytic virus TG6002 has shown efficacy and good safety profile in several preclinical models. Transgene believes that TG6002 may represent a new therapeutic option in recurrent cancer patients.

Another Phase 1/2 trial using TG6002 administered intravenously is ongoing in Europe in patients with advanced gastrointestinal tumors.

About Colorectal cancer

Colorectal cancer (CRC) is the second most commonly diagnosed cancer in Europe and a leading cause of death both in Europe and worldwide. In 2012, there were 447,000 new cases of CRC in Europe with 215,000 deaths and worldwide, there were 1.4 million new cases with 694,000 deaths (Ferlay J. *et al.*, 2013, Ferlay J. *et al.*, 2015). Approximately half of all CRC patients develop liver metastases, only a small proportion of whom being suitable for potentially curative hepatic resection (Leporrier J, 2006). Over the last decade, the clinical outcome for patients with metastatic CRC (mCRC) has improved. Today, the median overall survival (OS) for patients with mCRC is ~30 months.

About Transgene

Transgene (Euronext: TNG) is a publicly traded French biotechnology company focused on designing and developing targeted immunotherapies for the treatment of cancer and infectious diseases. Transgene's programs utilize viral vector technology with the goal of indirectly or directly killing infected or cancerous cells. The Company's lead clinical-stage programs are: TG4010, a therapeutic vaccine against non-small cell lung cancer, Pexa-Vec, an oncolytic virus against liver cancer, and TG4001, a therapeutic vaccine against HPV-positive head and neck cancers. The Company has several other programs in clinical development, including TG1050 (a therapeutic vaccine for the treatment of chronic hepatitis B) and TG6002 (an oncolytic virus for the treatment of solid tumors).

With its proprietary Invir.IO™, Transgene builds on its expertise in viral vectors engineering to design a new generation of multifunctional oncolytic viruses.

myvac™, an individualized MVA-based immunotherapy platform designed to integrate neoantigens, completes this innovative research portfolio. TG4050, the first candidate selected from the *myva*™ platform, will enter the clinic for the treatment of ovarian cancer and head and neck cancers.

Additional information about Transgene is available at: www.transgene.fr.

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