VAXIMM

VAXIMM Initiates Phase I/II Trial with VXM01 Oral T-cell Immunotherapy in Combination with PD-L1 Inhibitor Avelumab in Glioblastoma

Basel (Switzerland) and Mannheim (Germany), December 13, 2018 – VAXIMM AG, a Swiss/German biotech company focused on developing oral T-cell immunotherapies, today announced that the first patient has been dosed in a Phase I/II trial evaluating VXM01 oral immunotherapy in combination with avelumab*, a human anti-PD-L1 antibody, for the treatment of glioblastoma. The trial is part of a collaboration agreement with Merck KGaA, Darmstadt, Germany and Pfizer Inc.

This trial is a multicenter, open-label, Phase I/II trial (EudraCT #: 2017-003076-31) to evaluate the safety and efficacy of VXM01 in combination with avelumab in patients with recurrent glioblastoma. The trial is planned to enroll a total of 30 patients at approximately eight clinical sites in Europe. The primary objective of the study is to evaluate the safety and tolerability of VXM01 in combination with avelumab. Secondary objectives include progression-free survival and overall survival.

Prof. Wolfgang Wick, MD, Chairman, Department of Neurology, Heidelberg University Hospital, Heidelberg, Germany, and principal investigator of the study, said: "We have already seen promising clinical results with VXM01 as a monotherapy to treat patients with progressive glioblastoma. There is a strong scientific rationale to evaluate this oral immunotherapy with a PD-L1 inhibitor as the checkpoint inhibition may enhance the activity of the vaccine. There is an urgent need to find more effective treatments to help prevent further progression of this deadly form of brain tumor, and we look forward to seeing the results of this combination trial."

Heinz Lubenau, PhD, Chief Operating Officer and Co-Founder of VAXIMM, said: "We are very pleased that this important trial is now underway. This first collaboration with Merck KGaA, Darmstadt, Germany and Pfizer will give us great insight into the potential efficacy of the combination of these two therapeutic modalities to treat brain tumors."

*Avelumab is under clinical investigation for the treatment of glioblastoma in combination with VXM01 and has not been demonstrated to be safe and effective for this use. There is no guarantee that avelumab will be approved for glioblastoma by any health authority worldwide.

About glioblastoma

Glioblastoma is a deadly form of brain tumors. The disease can be difficult to treat because the tumors contain many different types of cells. In the European Union there were estimated to be nearly 49,000 new cases of brain and nervous system tumors and over 38,000 deaths in 2018.[1] In the US, there were estimated to be nearly 24,000 new cases in 2018 and nearly 17,000 deaths.[2] Radiation and chemotherapy may be used to slow the growth of glioblastomas that cannot be removed with surgery. However, according to the American Association of Neurological Surgeons, patients typically die in the first 15 months after diagnosis. Thus, there is an urgent need to find more effective treatment options.

About VXM01

VXM01 is an oral T-cell immunotherapy that is designed to activate T-cells to attack the tumor vasculature, and, in several tumor types, attack cancer cells directly. It is based on a live attenuated, safe, orally available, bacterial vaccine strain, which is modified to carry vascular endothelial growth factor receptor-2 (VEGFR2) as the target gene. VXM01 stimulates the patient's immune system to activate VEGFR2-specific, cytotoxic T-cells (so-called killer cells). These immune killer cells then actively destroy cells in the tumor vasculature, leading to an increased infiltration of various immune cells into the tumor. In several tumor types, including brain cancer, VEGFR2 is highly over-expressed on the cancer cells themselves. In preclinical studies, a murine analog VXM01 vaccine showed broad anti-tumor activity in different tumor types. This activity was linked to a VEGFR2-specific T-cell response and was accompanied by the destruction of the tumor vasculature and increased immune cell infiltration. In a Phase I double-blind, randomized, placebo-controlled study in 71 patients with advanced pancreatic cancer, VXM01 appeared to be safe and well tolerated and led to the activation of VEGFR2-specific cytotoxic T-cells, which was associated with significantly improved patient survival. Clinical activity in terms of objective responses and survival has been observed in recurrent glioblastoma.

About avelumab

Avelumab is a human anti-programmed death ligand-1 (PD-L1) antibody. Avelumab has been shown in preclinical models to engage both the adaptive and innate immune functions. By blocking the interaction of PD-L1 with PD-1 receptors, avelumab has been shown to release the suppression of the T cell-mediated antitumor immune response in preclinical models.[3-5] Avelumab has also been shown to induce NK cell-mediated direct tumor cell lysis via antibody-dependent cell-mediated cytotoxicity (ADCC) *in vitro*.[5-7] In November 2014, Merck KGaA, Darmstadt, Germany, and Pfizer announced a strategic alliance to co-develop and co-commercialize avelumab.

Approved Indications

The US Food and Drug Administration (FDA) granted accelerated approval for avelumab (BAVENCIO©) for the treatment of (i) adults and pediatric patients 12 years and older with metastatic Merkel cell carcinoma (mMCC) and (ii) patients with locally advanced or metastatic urothelial carcinoma (mUC) who have disease progression during or following platinum-containing chemotherapy, or have disease progression within 12 months of neoadjuvant or adjuvant treatment with platinum-containing chemotherapy. These indications are approved under accelerated approval based on tumor response rate and duration of response. Continued approval for these indications may be contingent upon verification and description of clinical benefit in confirmatory trials.

Avelumab is currently approved for patients with MCC in more than 35 countries globally, with the majority of these approvals in a broad indication that is not limited to a specific line of treatment.

Important Safety Information from the US FDA-Approved Label
The warnings and precautions for avelumab (BAVENCIO©) include immune-mediated adverse reactions (such as pneumonitis, hepatitis, colitis, endocrinopathies, nephritis and renal dysfunction and other adverse reactions), infusion-related reactions and embryo-fetal toxicity.

Common adverse reactions (reported in at least 20% of patients) in patients treated with BAVENCIO for mMCC and patients with locally advanced or metastatic UC include fatigue, musculoskeletal pain, diarrhea, nausea, infusion-related reaction, peripheral edema, decreased appetite/hypophagia, urinary tract infection and rash.

For full prescribing information and medication guide for BAVENCIO, please see www.BAVENCIO.com.

About VAXIMM
VAXIMM is a privately held, Swiss/German biotech company that is developing oral T-cell immunotherapies for patients suffering from cancer. VAXIMM's product platform is based on a live attenuated, safe, orally available bacterial vaccine strain, which is modified to stimulate patients' cytotoxic T-cells to target specific structures of the tumor. The Company has a pipeline of complementary development candidates targeting different tumor structures. Lead product candidate, oral VXM01, activates killer cells targeting tumor-specific vasculature and certain immune-suppressive cells, thereby increasing immune cell infiltration in solid tumors. VXM01 is currently in clinical development for several tumor types, including pancreatic, colorectal and brain cancer. VAXIMM has a collaboration agreement with China Medical System Holdings (CMS), granting CMS full rights in China and other Asian countries (excluding Japan) to VAXIMM's existing programs. CMS has made an equity investment in VAXIMM; the Company's other investors include BB Biotech Ventures, M Ventures, Sunstone Capital and BioMed Partners. VAXIMM AG is headquartered in Basel, Switzerland. Its wholly owned subsidiary, VAXIMM GmbH, located in Mannheim, Germany, is responsible for the Company's development activities. For more information, please see www.vaximm.com.

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