

**Philogen announces publication of malignant brain tumor study results in *Science Translational Medicine***

*Study shows Philogen's proprietary immunocytokines are effective treatment for brain tumors*

*Early promising findings from Philogen's Phase I/II study investigating the safety and efficacy of L19TNF monotherapy in patients with glioblastoma*

*Philogen's proprietary cancer treatment found to be safe and well-tolerated*

**Siena, Italy, October 8<sup>th</sup>, 2020** - Philogen S.p.A., a clinical-stage biotechnology company focused on antibody-based therapeutics, is pleased to announce the publication of a peer-reviewed scientific article in *Science Translational Medicine*. The article is entitled: "*Immunocytokines are a promising immunotherapeutic approach against glioblastoma*" (T. Weiss, E. Puca, M. Silginer, T. Hemmerle, S. Pazahr, A. Bink, M. Weller, D. Neri, P. Roth, Immunocytokines are a promising immunotherapeutic approach against glioblastoma. *Sci. Transl. Med.* 12, eabb2311 (2020)) and can be accessed [here](#).

The findings of the study show how Philogen's proprietary antibody-cytokine fusions, called immunocytokines, demonstrated striking single-agent anti-cancer activity in immunocompetent preclinical models bearing orthotopic glioblastoma. Moreover, the treatment induced long-term tumor eradications in a proportion of the treated animals. These findings were of particular relevance as preclinical models with glioblastoma cannot be cured by any current standard of care.

The article also discusses initial clinical results of the first patients recruited in the PH-L19TNFGLIO-02/18 Phase I/II trial. Early findings showed that Philogen's proprietary treatment, onkekafusp alpha (L19TNF), when used as a monotherapy induced not only a selective tumor necrosis in all patients (evidenced by contrast-enhanced and perfusion Magnetic Resonance Imaging), but also provided cases of prolonged disease stabilization. During the study, the treatment was shown to be safe and well tolerated.

The ongoing Phase I/II clinical study (PH-L19TNFGLIO-02/18, <https://clinicaltrials.gov/ct2/show/NCT03779230>) is investigating the use of L19TNF as a single-agent for the treatment of high-grade glioma at first recurrence/relapse, a patient population with an otherwise very poor prognosis. TNF is delivered to cancer lesions by the L19 antibody specific to the EDB domain of Fibronectin, a marker for angiogenesis that is expressed in virtually all patients with malignant glioma. The Company has previously demonstrated by nuclear medicine procedures in more than 50 patients, that the L19 antibody could efficiently localize in primary and secondary brain tumors.

The phase I/II study is open label, in subjects with glioblastoma at first recurrence/relapse and will be conducted in two parts: (i) a dose finding part to determine the recommended dose of L19TNF (the data of this part of the study are published in the paper), (ii) followed by a signal seeking part that investigates first signs of activity.

*"We are very excited about the excellent preclinical results obtained in collaboration with Philogen, which is a leader in the field of targeted delivery of cytokine therapeutics. The emerging clinical results of the ongoing study with L19TNF in glioblastoma - the most malignant brain tumor - provides hope for an alternative therapeutic opportunity for patients suffering from this terrible disease. In a next step, we aim at understanding the potential of L19TNF by investigating the product in larger*

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*randomised trials.” commented Prof. Michael Weller, Chairman of the Department of Neurology at the University Hospital in Zurich.*

**Prof. Dario Neri, Co-Chief Executive Officer of Philogen, added:** *“Our treatment is demonstrating effectiveness at switching the immunologically cold glioma microenvironment into a hot one, enabling effective antitumor immunity. We are delighted with the progress being made with our immunocytokine and are pleased with the great promise this could bring to patients with malignant brain tumors.”*

The clinical study is led by Prof. Michael Weller, Dr. Patrick Roth and Dr. Tobias Weiss at the Department of Neurology of the University of Zurich. Philogen acts as the sponsor of the trial.

### **About Philogen**

Philogen is a Swiss-Italian clinical-stage company engaged in the discovery and development of novel pharmaceutical and biopharmaceutical products. Philogen’s strategy is to deliver bioactive agents, for example cytokines or drugs, to the site of disease using antibodies and other ligands that specifically and efficiently target stromal antigens. This technology has generated a strong proprietary pipeline of clinical-stage products and preclinical compounds in an array of disease indications. Philogen is headquartered in Siena, Italy, and has research activities at its subsidiary company Philochem in Zürich, Switzerland. Philogen is independently owned, and has signed agreements with several major pharmaceutical companies. For more information please visit [www.philogen.com](http://www.philogen.com) and [www.philochem.com](http://www.philochem.com).

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