THE ABSOLUT BREAKTHROUGH IN CANCER THREAPY:

PATENTED SILENCING OF THE UNIVERSAL CANCER-MASTERGENE TRAF3IP2

Cancer is the second leading cause of death worldwide. According to the Global Cancer Statistics 2020, an estimated 19.3 million new cancer cases and more than 10.0 million cancer deaths occurred worldwide in 2020. The most common types of cancer in terms of new cases in 2020 were breast, lung, colon and rectum, prostate, skin (non-melanoma), and stomach cancer.

Despite significant advancements in cancer treatment, mortality benefit remains limited due to therapy inefficacy and treatment failures, attributed to various factors, including the following: Heterogeneity of cancer; Resistance to treatment of chemotherapy, radiation, and to novel immune treatments strategies, making current therapeutic options less effective over time[10]. Side effects can be severe and impact the quality of life of patients. Late diagnosis, when the tumor has already spread to other parts of the body (metastasis), making it more difficult to treat. In fact, **the vast majority of cancer mortality is due to metastasis of the primary cancer.**

Most standard therapies (chemotherapy and radiotherapy) and emerging therapies (biologics, specific molecular inhibitors) are mainly focused on targeting a single molecular pathway and predominantly are less effective on cancer stem cells. Tumors are “flexible” due to these cancer stem cells, which survive therapies and subsequently morph into more resistant forms. This is the major factor associated with treatment failure resulting in significant mortality rates. The major gene that is of major importance for cancer stem cells is TRAF3IP2. Especially metastasis is dependent on TRAF3IP2. **We discovered and patented the novel and previously unknown TRAF3IP2 gene essential for the GROWTH of ALL CANCERS** and assigned all rights plus additional cancer therapy related patents to our foundation, ready for further commercialization.

TRAF3IP2 expression is increased in tumor tissues: To demonstrate the clinical relevance of TRAF3IP2 for example in glioblastoma (the absolute deadly brain cancer) we analyzed TRAF3IP2 expression in glioblastoma tissue. Immunohistochemistry (IHC) shows increased TRAF3IP2 expression in ten different *primary human glioblastoma patient tissue samples.*

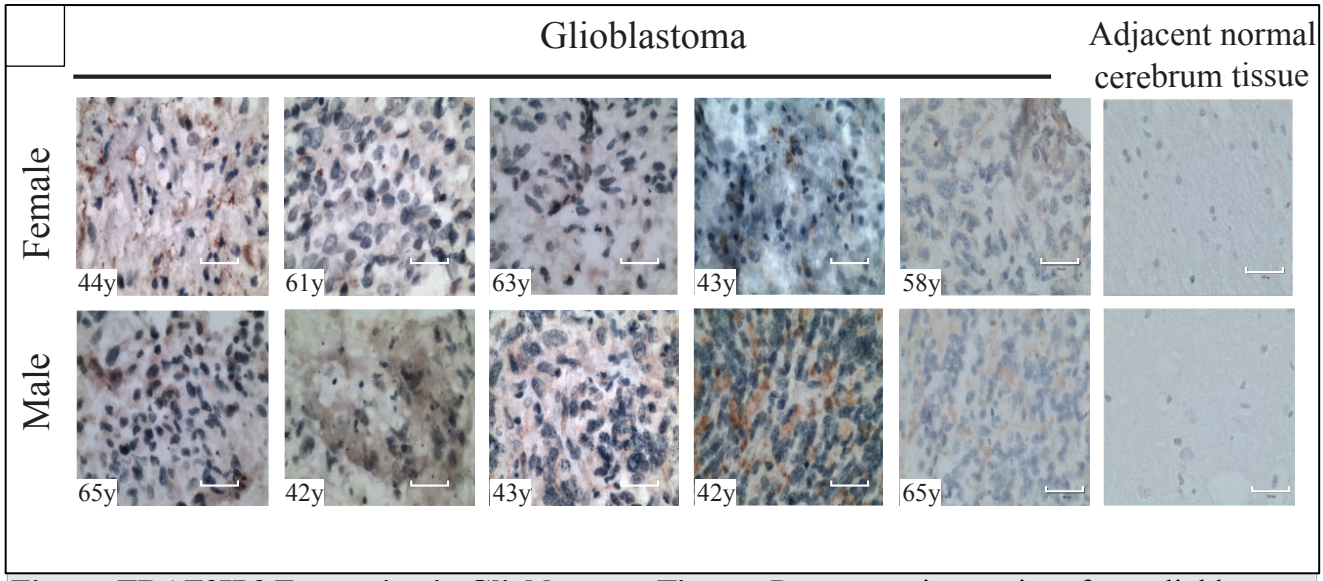

Figure. TRAF3IP2 Expression in Glioblastoma Tissues. Representative sections from glioblastoma tissues from ten patients show increased expression of TRAF3IP2 (brown) by IHC, counterstained with hematoxylin (blue). Scale bar, 100 mm. Normal brain tissue (right) not showing the Traf3IP2 gene

Silencing TRAF3IP2 inhibits glioblastoma growth. **Glioblastoma cells** (U87) were transduced with lentiviral vector expressing TRAF3IP2 shRNA ($U87_{TRAF3IP2KD}$) compared to control Virus.

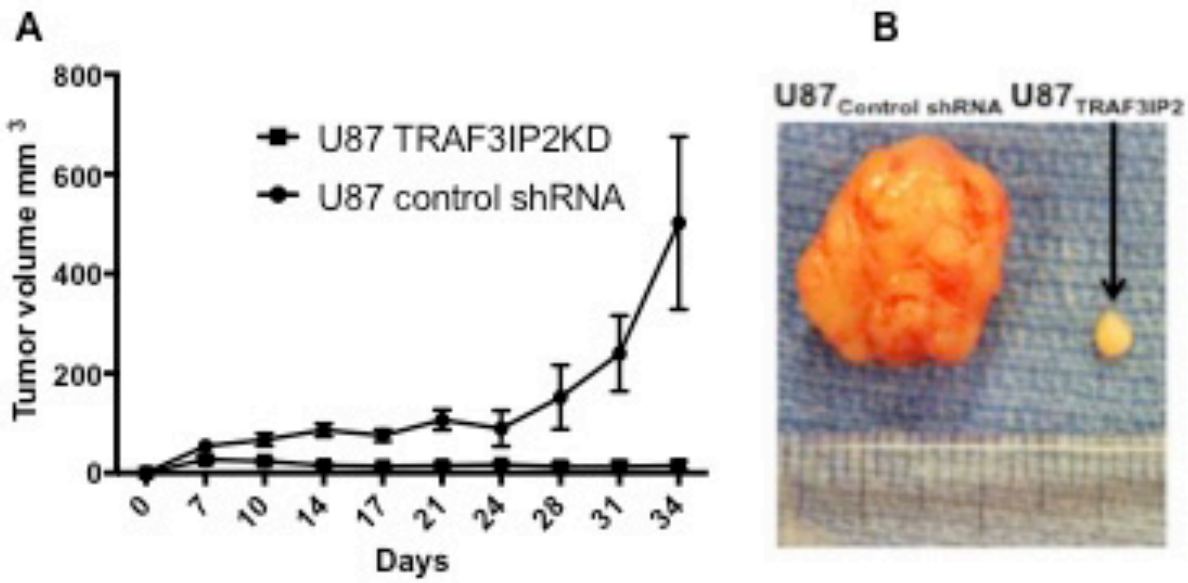

Figure Silencing TRAF3IP2 prevents glioblastoma growth. **(A)** Immunodeficient NIH-III mice were injected with $U87_{TRAF3IP2KD}$ cells ($1X10^6$ cells) into the flank region. Control animals were injected with $U87_{control\ shRNA}$ cells ($1X10^6$ cells). Tumor size was measured weekly using calipers. **(B)** $U87_{TRAF3IP2KD}$ cells form sign. smaller tumors (10,6 mg tumor weight in silenced tumor cells versus 1480 mg in control