

CANCER BIOTHERAPY

We are Laura Bocanegra Gomez and Silvia Weiss, and together with our team we want to cure humans from cancer. Cancer is one of the biggest challenges humanity is facing, seeing that four out of ten people develop it at some point in their life. While some patients respond nicely to different existing therapies, others do not. As a result, many people die due to this illness, and this creates the need to find new treatment options. Our approach is by using a unicellular microorganism, which does not harm healthy cells nor activate the immune system. A patent application has been submitted in Sept. 2024 by the University of Vienna.

Our microorganism works like a mini robot which is able to sense the surrounding environment, move towards the tumor mass and kill the tumorigenic cells while leaving the healthy ones untouched. As soon as the cancer is gone, the environment changes back to a healthy state which the microorganism cannot tolerate and therefore dies. By this approach, we were not only able to show accumulation and proliferation within tumors both in 3D cell assays as well as murine tumors, but also to cure mice from colorectal cancer while keeping their negative side effects at a bare minimum. By employing different assays after incubating our microorganism with various human immune cells, we have first data proving that our approach is safe.

At the moment, we want to attract financing to be able to reproduce our own data, gather more information to strengthen our value proposition even further, and optimize the formulation. Moreover, to pave our way successfully into clinics, we want to prove our concept next in a bladder cancer model, since for this tumor type the FDA already approved a treatment an attenuated living microorganism, underlining that our approach could indeed become an approved therapy one day.

Our dream would be a B2B2C business models, where we are able to operate via health insurances, to bring our innovative therapy approach to patients and their attending oncologists within dedicated treatment centers incorporated in hospitals.

At this point our team consists of a cancer and microbiology subgroup, which does not only unite multiple creative minds but also a broad range of techniques and therefore enables us to generate data ranging from basic research to preclinical in-house.

Although we know that the road ahead of us will be long and get stoney, we fell the inner need that we have to take it. People with a cancer diagnosis often do not have a lot of choices. Seeing our data, we are convinced that we could give those patients one more treatment option and this shows the exact reason why we want to do all of this: to cure people from cancer.