

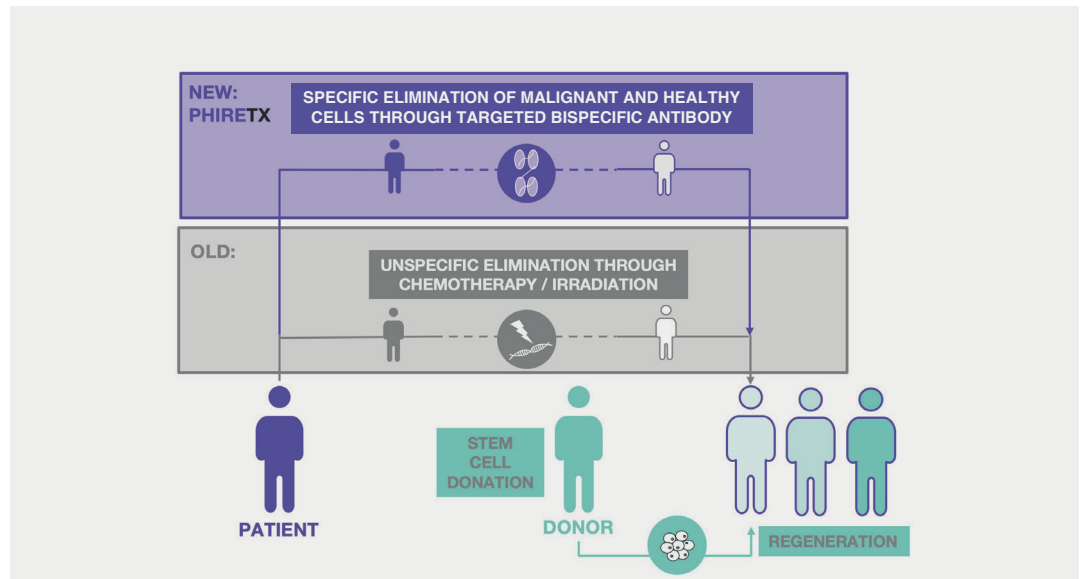


# Phire

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Antibody-enabled blood  
stem cell transplantation

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## Antibody-enabled blood stem cell transplantation

Hematopoietic stem cell transplantation (HSCT) is a powerful intervention to cure life-threatening diseases of the blood and immune system, such as Acute Myeloid Leukemia (AML).

For a successful transplant of blood stem cells, the patient's own, faulty blood system needs to be removed to make room for donor stem cells and to ensure engraftment and regeneration of the donor system in the patient's body. Removing the old blood system is the first step of a transplant and is called 'conditioning phase'. Today, this conditioning phase is being performed through intensive chemotherapy and in some cases radiation - with severe side effects. These side effects prevent the majority of elderly and frail patients from receiving a transplant.

Phire aims at the development of a novel bispecific T-cell engaging antibody in order to transform current HSCT practice into an immunologic precision-medicine approach.

In order to firmly establish our new therapeutic paradigm, we will initially focus on treating patients with AML. However, if successful, the bispecific antibody will revolutionize the way HSCT is performed, with a potential benefit not only for the treatment of AML, but also for a variety of other hematological conditions. This means that our approach enables Regenerative Medicine on a grand scale. Not only AML patients, but every patient with a faulty blood system, that could be cured by removing, replacing and regenerating the hematopoietic system, could benefit from our enabling technology. Phire aims to build a catalyst that makes Regenerative Medicine possible.

The interdisciplinary team of Phire consists of scientists, engineers and medical doctors from ETH Zurich and University Hospital Zurich/ University of Zurich.

