

Molecular Partners — Pioneers of DARPins



DARPin therapeutics are a new class of custom-built drugs with the potential to offer unique solutions for defined medical problems not readily addressable by other drug modalities

Pioneering new therapeutics for patients

Molecular Partners AG (SIX: MOLN, NASDAQ: MOLN) is a clinical-stage biotech company pioneering DARPin therapeutics for patients. Founded in 2004, we are a team of approximately 180 dedicated and passionate colleagues with operations in Switzerland and the U.S. Through our leadership, together with partners, we have:

- Developed 7 clinical-stage DARPin candidates
- Treated >2500 patients globally
- Demonstrated clinical value of DARPin therapeutics across several therapeutic areas
- Reached late-stage clinical development, including registrational stage

DARPin therapeutics – a new drug class

DARPin (Designed Ankyrin Repeat Protein) therapeutics are a new class of custom-built drugs based on natural binding proteins with the potential to overcome several limitations of current protein-based therapeutics. DARPin therapeutics can be tailored to specific disease biology by leveraging key advantages of DARPins:

- Small size with very flexible and stable architecture
- High affinity and specificity to targets
- Broad target range
- Modular design: radically simple (single DARPin for one target) or multispecific (>5 targets possible)
- Simple high-yield manufacturing

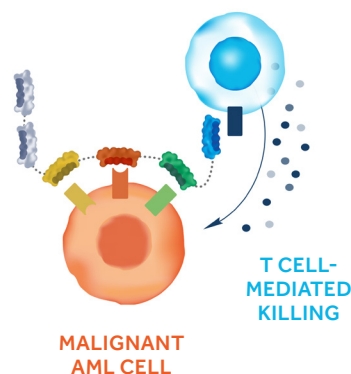


Bright future for DARPins

There is great need to deliver disease-specific solutions for diverse conditions. Through our 20 years of leadership and experience with DARPins, we have advanced the power and versatility of DARPin therapeutics for the benefit of patients. As our understanding of the mechanisms of various diseases deepens, the opportunity for DARPin therapeutics is greater than ever.

Innovative DARPin solutions for diseases with high unmet need

MP0533 (tetra-specific T cell engager)



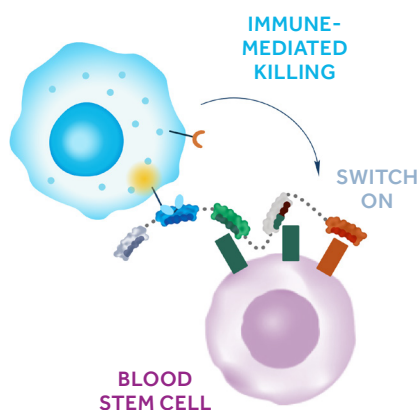
CHALLENGE

Existing treatments rarely completely clear acute myeloid leukemia (AML) cells from the body, which leads to relapse.

SOLUTION

MP0533 specifically attracts T cells to AML cells by targeting three antigen targets that are preferentially co-expressed on cancerous cells. Importantly, the strength of binding increases with the number of target antigens engaged. This unique avidity-driven mode of action strongly favors binding to AML cells over healthy cells and is designed to enable higher dosage and more thorough destruction of AML cells while minimizing damage to healthy cells.

Switch-DARPin Platform



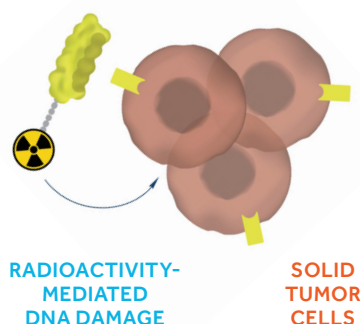
CHALLENGE

While stem cells transplants are potentially curative, current conditioning regimens to eradicate existing bone marrow stem cells are extremely toxic.

SOLUTION

Our Switch-DARPin platform represents a way to more precisely clear specific cells. Our first focus is removing blood stem cells by activating a highly targeted immune response in a specific biological context. We use a dual-binding DARPin (the "Switch") to provide a logic-gated "on/off" function to a multispecific DARPin. The Switch function reacts according to the presence of defined targets as well as their relative proximity and affinity to the "Switch," thereby allowing conditional activation of immune cells.

Radio-DARPin Therapy (RDT)



CHALLENGE

Radiopharmaceuticals are a powerful approach for targeting solid tumors but their use is often limited by collateral damage to healthy cells.

SOLUTION

Our Radio-DARPins are designed to deliver radioactive payloads to a broad range of tumor targets while sparing healthy tissues. We have designed our candidates to minimize kidney retention, a historic challenge for the approach, while increasing tumor uptake through precise control of how long the RDT candidates stay in the body. Our RDT portfolio includes collaborations with Novartis and Orano Med.

