Establishing immune tolerance in multiple sclerosis with peptide-coupled red blood cells – Status quo within the Wyss Zurich ETIMSred project

With approximately 2.5 million patients worldwide, Multiple Sclerosis (MS) is one of the most common causes of permanent neurological disability in young adults. So far, there is no cure for MS; current treatments only reduce disease relapses and carry the risk of severe side effects caused by inhibiting the patient’s immune system.

A team led by Prof. Roland Martin already developed an innovative therapy known as ETIMS (Establish Tolerance in MS). The goal of this cell based therapy is to stop the autoimmune process by educating the immune system to tolerate antigenic targets such as myelin. With the ETIMSred project, the Wyss Zurich team is now advancing this therapy further by using red blood cells to induce immune tolerance. The key objective of the ETIMSred project is to establish the safety, tolerability and efficacy of this new approach in a phase I/II clinical trial in MS patients.