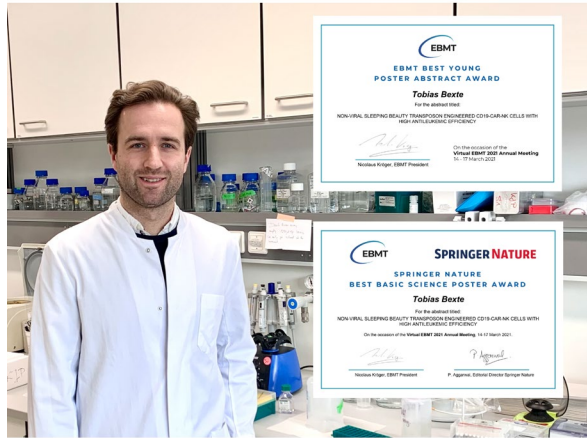


TWO AWARDS FOR MD STUDENT TOBIAS BEXTE AT EBMT-CONGRESS

At this year's 47th Congress of the European Society for Blood and Marrow Transplantation (EBMT), the work of Tobias Bexte (IRTG / CRC 1292 / [TP12 - AG Ullrich](#)) was awarded with two prizes - the "Springer Nature Poster Award" (Best Basic Science Poster Award) and a "Best Young Abstract Award".



The awarded research project on *Sleeping Beauty* CAR-NK cells presents an innovative virus-free method for gene modification of natural killer cells (NK cells). NK cells are part of the body's innate immune defense against foreign and infected cells. In the project of Tobias Bexte, medical student from Evelyn Ullrich's team, together with the group of Prof. Zoltan Ivics from the Paul Ehrlich Institute in Langen primary NK cells were successfully equipped with a chimeric antigen receptor (CAR) using for the first time the non viral *Sleeping Beauty* (SB) Transposon System.

These SB-generated CD19-CAR NK cells showed increased killing of CD19-expressing acute lymphoblastic leukemia (B-ALL) cells, and exhibited significantly higher cytotoxicity than unmodified NK cells. In addition to the increased functionality, a significantly safer genomic integration into the NK cells could be achieved by this virus-free gene modification method compared to classically used lentiviral technologies. This new technology is not only suitable as a relatively cost-effective and safe option for the generation of CAR NK cell therapy of ALL, it can be also used as a promising technology for the development of cellular therapies for other types of cancer.

The IRTG/CRC fellow Tobias Bexte is working as an MD student on new NK cell therapies in the group of Prof. Dr. Ullrich ([TP12](#)) in the "Experimental Immunology" group at the Department of Pediatrics and Adolescent Medicine of the University Hospital Frankfurt. Due to the SARS-CoV-2 pandemic, the poster awards were digitally presented at the 47th Annual EBMT Meeting on March 17, 2021.

The whole team of IRTG/CRC-1292 around speaker Prof. Dr. Hansjörg Schild and Prof. Dr. Tobias Bopp congratulates Tobias Bexte for this major achievement.

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