

CytomX and MD Anderson Cancer Center enter into strategic collaboration for Probody-enabled CAR-NK cell therapies

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CytomX Therapeutics, a biopharmaceutical company developing investigational Probody therapeutics for the treatment of cancer, today entered into a collaboration with The University of Texas MD Anderson Cancer Center to research Probody-enabled chimeric antigen receptor natural killer (CAR-NK) cell therapies, to be known as ProCAR-NK cell therapies.

MD Anderson will leverage its expertise in developing allogeneic umbilical cord blood and peripheral blood derived NK-cell therapies and combine it with CytomX's Probody technology to address new targets for this novel modality in cancer immunotherapy. Designed for more precise binding to tumors and reduced binding to healthy tissue, ProCAR-NK cell therapies will be created against targets for which safety and toxicity have traditionally been limiting factors for CAR cell therapies. Under the collaboration, CytomX and MD Anderson will develop ProCAR-NK cell therapies against multiple targets, and CytomX will have the option to license therapeutics that demonstrate preclinical proof of concept for clinical and commercial development.

From MD Anderson, the collaboration will be led by Katy Rezvani, M.D., Ph.D., professor, department of Stem Cell Transplantation and Cellular Therapy; and Elizabeth Shpall, M.D., professor, department of Stem Cell Transplantation and Cellular Therapy. Rezvani has conducted more than a decade of research in NK-cell therapies.

"Our researchers see distinct promise in NK [cells](#), as their role in the innate immune system enables immediate tumor killing effect compared to T-cells. In addition, CAR-NK cells have the opportunity to be off the shelf therapies as opposed to autologous CAR-T cell therapies," said Rezvani. "By combining these advantages of CAR-NK cell therapies with the added targeting of this novel technology, we believe that we can create therapies that realize the full potential of the therapeutic class."

Therapeutics developed with CytomX's Probody platform have a mask linked to the antibody's antigen-binding site designed to avoid the binding of antigens on healthy tissue. The mask is cleaved by proteases found in the tumor microenvironment, allowing Probody therapeutic to selectively bind to tumor cells. This binding selectivity allows CytomX to potentially expand the therapeutic window for both existing and new antigen targets. CytomX's pipeline of wholly owned and partnered programs includes development-stage Probody cancer immunotherapies, Probody drug conjugates and Probody bispecifics.

"The progress we continue to make within our pipeline has shown that Probody therapies offer important advantages over traditional antibodies, with the potential for creating safe and effective cancer immunotherapies and antibody drug conjugates," said Sean McCarthy, D.Phil., chief executive officer of CytomX. "This collaboration will allow us to draw on world-class research from MD Anderson in the field of CAR-NK cell therapies and extend our platform to this exciting modality."

NK cells are cytotoxic lymphocytes that comprise a central component of the innate immune system. When these cells are engineered to express CARs that target proteins found on cancer cells, they demonstrate powerful anti-tumor responses. The resulting therapeutic class has potential advantages over CAR-T cells, including simpler manufacturing.

Provided by University of Texas M. D. Anderson Cancer Center

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