



Senti Bio to Present Data from CAR-NK Cell Oncology Pipeline at ISCT Annual Meeting

- Senti Bio has designed a scalable process for efficient manufacturing of allogeneic CAR-NK cell pipeline -

- Large scale expansion of PBMC-NK cells and UCB-NK cells may provide a scalable source for gene circuit engineered allogeneic CAR-NK cell therapies -

South San Francisco, Calif., May 25, 2021—Senti Bio, a leading gene circuit company, today announced presentations on its gene circuit engineered allogeneic CAR-NK cell therapy pipeline at the International Society for Cell and Gene Therapy (ISCT) Virtual Annual Meeting. The presentations provide details of Senti Bio's process for manufacturing allogeneic CAR-NK cells. A key advantage of allogeneic cell therapies, versus autologous products that use each patient's own cells, is the ability to potentially manufacture large batches of drug product from healthy donor cells that can be produced in advance of clinical use and then stored in frozen vials—thereby being broadly accessible in an off-the-shelf manner to cancer patients. Taken together, these abstracts support the development of processes for large scale production of "off-the-shelf" peripheral blood mononuclear cell (PBMC)-derived and umbilical cord blood (UCB)-derived CAR-NK cell-based therapies.

Senti Bio is designing gene circuits to enable a new generation of "smarter medicines" to potentially enhance the therapeutic effectiveness of cell and gene therapies against a broad range of diseases that cannot be readily addressed by current standards of care.

Development of a Scalable GMP-Ready Manufacturing Process for Gene Circuit Engineered Allogeneic CAR-NK Cell Therapy for Cancer

Wood et al. Poster Presentation: ID# 1238

The authors demonstrated a scalable process for efficient production of allogeneic CAR-NK cell product candidates that included the ability to perform necessary steps in the CAR-NK cell manufacturing process.

The results are summarized as follows:

- CAR-NK cells were successfully transduced and expanded, and their growth characteristics were evaluated via multiple methods and found to be highly viable;
- Cryopreserved CAR-NK cells retained high potency *in vitro/in vivo*, similar to freshly prepared NK cells; and
- A robust allogeneic PBMC-derived CAR-NK cell manufacturing production process, suitable for translation to GMP clinical manufacturing, was demonstrated.

Umbilical cord blood (UCB)-derived natural killer (NK) cells provide a highly scalable source for gene circuit engineered allogeneic CAR-NK cell therapies

Iyer et al. Poster Presentation: ID# 410

The authors evaluated transduction efficiency, scalability and cryopreservation of UCB-derived NK cells compared to adult PBMC-derived NK cells in the context of gene circuit engineered CAR-NK cell therapy. The results are summarized as follows:

- Allogeneic UCB- and PBMC-NK cells were efficiently transduced with CAR-constructs; they displayed consistent growth and long-term stable transgene expression during *ex vivo* expansion and post freeze/thaw;
- CAR-NK cells showed potent anti-tumor activity against target cancer cells in an *in vitro* cell-based cytotoxicity assay; and
- This research suggests that this process could support large scale production of "off-the-shelf" UCB-NK cell-based therapies.

Abstracts are available on the [ISCT website](#). Posters will be available beginning today, a pre-conference day dedicated to poster presentations, and will feature an interactive direct chat with the authors. Posters will also be available on the [Senti Bio website](#).

About Senti Bio

Our mission is to create a new generation of smarter medicines that outmaneuver complex diseases in ways previously inconceivable. To accomplish this mission, we are building a synthetic biology platform that we believe may enable us to program next-generation cell and gene therapies with what we refer to as "gene circuits." These gene circuits, which are created from novel and proprietary combinations of DNA sequences, are designed to reprogram cells with biological logic to sense inputs, compute decisions and respond to their cellular environments. We aim to design gene circuits to improve the "intelligence" of cell and gene therapies in order to enhance their therapeutic effectiveness against a broad range of diseases that conventional medicines do not readily address. For more information, please visit the Senti Bio website at <https://www.sentibio.com>.

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