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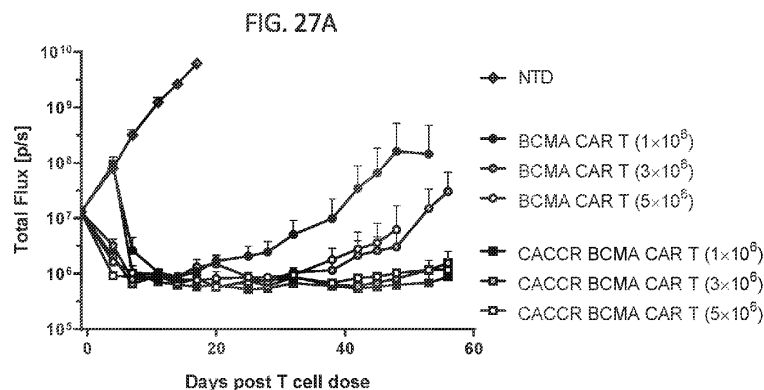
(71) Applicant: **ALLOGENE THERAPEUTICS, INC.**
[US/US]; 210 E. Grand Avenue, South San Francisco, California 94080 (US).

(72) Inventors: **LIN, Regina Junhui**; c/o Allogene Therapeutics, Inc., 210 E. Grand Avenue, South San Francisco, California 94080 (US). **PANOWSKI, Siler**; c/o Allogene Therapeutics, Inc., 210 E. Grand Avenue, South San Francisco, California 94080 (US). **SOMMER, Cesar Adolfo**; c/o Allogene Therapeutics, Inc., 210 E. Grand Avenue, South San Francisco, California 94080 (US). **VAN BLARCOM, Thomas John**; c/o Allogene Therapeutics, Inc., 210 E. Grand Avenue, South San Francisco, California 94080 (US). **SASU, Barbra Johnson**; c/o Allogene Therapeutics, Inc., 210 E. Grand Avenue, South San Francisco, California 94080 (US). **BALAKUMARAN, Arun**; c/o Allogene Therapeutics, Inc., 210 E. Grand Avenue, South San Francisco, California 94080 (US).

(74) Agent: **CHANG, Y. Elaine** et al.; ALLOGENE THERAPEUTICS, INC., 210 E. Grand Avenue, South San Francisco, California 94080 (US).

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(54) Title: **BCMA CAR-T CELLS WITH ENHANCED ACTIVITIES**



(57) Abstract: Provided here are engineered immune cells that comprise a constitutively active chimeric cytokine receptor (CACCR) and a B-cell maturation antigen (BCMA) specific chimeric antigen receptor (CAR). Also provided herein are engineered immune cells that comprise one or more nucleic acids e.g. a bicistronic vector such as a viral vector that encode the CACCRs and BCMA CARs and engineered immune cells e.g. engineered autologous or allogeneic T cells that express both CACCRs and BCMA CARs from the nucleic acids. When present on chimeric antigen receptor (CAR)-bearing engineered immune cells, the CACCRs allow for increased immune cell activation, proliferation, persistence, and/or potency. Further provided herein are methods of making and using the engineered immune cells described herein, such as methods of treating a disease or condition by administering at least one appropriate dose of the cells to a patient suffering from the condition.

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