



NexImmune Announces Data Showing AIM ACT T cells Enhance the Response to Bispecific T cell Engager Therapy at the 2023 Tandem Meetings: Transplantation & Cellular Therapy Meetings of ASTCT and CIBMTR

February 16, 2023

- *Tumor Associated Antigen (TAA)-specific AIM ACT CD8 T cells are superior to polyclonal peripheral blood CD4 T cells, naïve CD8 T cells, and bulk CD8 T cells as effectors of BiTE-mediated killing in vivo*

GAITHERSBURG, Md., Feb. 16, 2023 (GLOBE NEWSWIRE) -- NexImmune, Inc. (Nasdaq: NEXI), a biotechnology company developing a novel approach to immunotherapy designed to orchestrate a targeted immune response by directing the function of antigen-specific T cells, today announced that new positive, preclinical data will be presented in an abstract titled "**Prior Antigen Exposure Enhances the T cell Response to Bispecific T cell Engager Therapy**" at the 2023 Tandem Meetings: Transplantation & Cellular Therapy Meetings of ASTCT and CIBMTR, taking place on February 15-19, 2023 in Orlando, Florida.

AIM ACT T cells are non-engineered CTLs against 5 multiple myeloma antigen-peptide targets and include subtype populations (Tscm, Tcm, Tem) associated with anti-tumor activity and immunologic memory. The abstract describes the ability of multi-TAA AIM ACT T cells to work synergistically with BiTE therapy, revealing several important advantages over endogenous TAA nonspecific CD8 T cells + BiTE. The results show that BiTE potency, as measured by a reduction in tumor burden *in vivo*, is markedly increased in the presence of AIM T cells. Importantly, following withdrawal of BiTE therapy, recipients of the AIM ACT T cell combination remained tumor free or had a low tumor burden, while those that had received the bulk CD8+ T cell combination died within two weeks. This observation strongly suggests that AIM ACT T cells provide immunosurveillance following the withdrawal of the BiTE, a distinct advantage over bulk CD8+ T cells, which should contribute to the maintenance of remission.

"Our preclinical findings hold the promise that clinically, the AIM multi-TAA specific T cells can significantly enhance the activity of BiTEs over the current standard of care and also provide immunosurveillance, potentially helping extension and maintenance of remission in patients," said Principal Investigator, Johannes Zakrzewski, M.D., Associate Member of the Center for Discovery and Innovation at Hackensack University Medical Center.

Abstract details:

Title: Prior Antigen Exposure Enhances the T cell Response to Bispecific T cell Engager Therapy
Lead Authors: Mark Batistick, Center for Discovery and Innovation, Hackensack Meridian Health
Abstract #: 22061
Date/Time: February 16, 2023 at 5:45 pm ET (virtual poster presentation)

About NexImmune

NexImmune is a clinical stage biotechnology company developing a novel approach to immunotherapy designed to employ the body's own T cells to generate a specific, potent, and durable immune response. The backbone of NexImmune's approach is a proprietary Artificial Immune Modulation (AIM™) nanoparticle technology platform. The AIM technology enables NexImmune to construct nanoparticles that function as synthetic dendritic cells capable of directing a specific T cell-mediated immune response. AIM constructed nanoparticles employ natural biology to engage, activate and expand endogenous T cells in ways that combine anti-tumor attributes of antigen-specific precision, potency and long-term persistence with reduced potential for off-target toxicities. NexImmune is focused on developing injectable AIM nanoparticle constructs and modalities for potential clinical evaluation in oncology, autoimmune disorders and infectious diseases.

For more information, visit www.neximmune.com.

Forward Looking Statements

This press release may contain "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are based on the beliefs and assumptions and on information currently available to management of NexImmune, Inc. (the "Company"). All statements other than statements of historical fact contained in this press release are forward-looking statements, including statements concerning our planned change in corporate strategy and realignment, including the pausing of the Company's current clinical trials and the focusing on development of the AIM INJ platform; the enrollment, timing, progress, release of data from and results of the paused clinical trials and the expectations with respect to potential AIM INJ product candidates; the timing, progress and release of preclinical data from our AIM INJ platform programs and other preclinical research programs; the utility of prior preclinical and clinical data in determining future clinical results; and the expectation that existing cash and cash equivalents will enable the Company to fund its operating and capital expenditure requirements through the third quarter of 2023. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other comparable terminology. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These risks and uncertainties include, but are not limited to, the risks and uncertainties set forth in the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the Securities and Exchange Commission ("SEC") on March 9, 2022, and subsequent reports that we file with the SEC. Forward-looking statements represent the Company's beliefs and assumptions only as of the date of this press release. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, the Company assumes no obligation to publicly update any forward-looking statements for

any reason after the date of this press release to conform any of the forward-looking statements to actual results or to changes in its expectations.

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