GenVivo to Present Pipeline Programs at the 2024 American Society of Gene and Cell Therapy (ASGCT) Annual Meeting

A new non-integrating retrovector for systemic gene delivery for multiple applications and pseudotyped retrovectors targeting specific tumor types in vivo

SAN MARINO, CA, UNITED STATES, May 8, 2024 /EINPresswire.com/ -- GenVivo, Inc. (GVO) a private, clinical stage biopharmaceutical company with breakthrough off-the-shelf platforms for cancer gene medicine immunotherapies, announces two presentations detailing advances in integrase-free and specific-tumor-type-targeted retrovectors, at the American Society of Gene and Cell Therapy (ASGCT) Annual Meeting, May 7-11, in Baltimore, MD. These advances demonstrate a next-generation and flexible platform with potential advantages over other gene delivery systems, by providing even more efficacious, tumor-targeted, GVO vectors.

In vitro studies show that an integrase-deleted retrovector payload can be expressed at levels similar to vectors bearing a fully functional integrase, (in contrast to reports in the literature using an earlier system), with a high, yet transient, expression of the vector gene payload. Accordingly, this retrovector should be useful in systemically-delivered applications beyond cancer, such as targeted combination immunotherapy, gene editing, and therapeutic and prophylactic vaccines.

Advances in retrovector targeting are demonstrated by in vitro and In vivo studies showing that our engineered Sinbis-pseudotyped retrovectors exhibit specificity for different tumor cell types and can achieve a >7-fold higher transduction compared to our standard amphotropic vector. These results provide proof-of-concept for advancing translational development of next-generation tumor-targeted GVO vectors for cancer therapy.

Presentation

Poster 1

- Abstract Title: AN INTEGRASE-DELETED RETROVECTOR WITH PERSISTENT PAYLOAD EXPRESSION WITHOUT INTEGRATION SUITABLE FOR PROPHYLACTIC AND THERAPEUTIC APPLICATIONS
- Session Date and Time: Wednesday, May 8, 2024 from 12:00 PM to 1:30 PM and 5:30 PM to 7:00 PM EDT

- Abstract Number: 437
- Presenter: Bradford H. Steele, Sr. Research Scientist II, R&D, GenVivo, Inc.

Poster 2

- Abstract Title: SINGLE-CHAIN VARIABLE FRAGMENT-BASED CELL SURFACE MARKER-TARGETING BY SINDBIS-PSEUDOTYPED RETROVECTORS
- Session Date and Time: Thursday, May 9, 2024 from 12:00 PM to 1:30 PM and 5:30 PM to 7:00 PM EDT
- Abstract Number: 941
- Presenter: Makoto Sato, Ph.D., Sr. Principal Scientist , R&D, GenVivo, Inc.

About GenVivo

GenVivo is a private, vertically-integrated biotechnology company founded to develop the latest novel gene delivery and immune stimulation therapies, which activate the patient's immune system to treat cancers and prevent/treat infectious diseases. GenVivo is committed to developing and manufacturing products that are rapidly deployed, and easily administered, with the goal of increasing patient survival and improving quality of life. GEN2, GVO's first clinical candidate, is currently in a Phase 1 clinical trial in the US.

For more information about GenVivo, visit https://genvivoinc.com/

About GEN2

GenVivo's lead product candidate, GEN2, is designed to synergistically attack tumors to release patient-specific tumor antigens (neoantigens) in the presence of a locally-expressed cytokine. The consequent generation of immune effector cells is intended to restore and augment patient anti-tumor immune activity, resulting in a durable therapeutic response. The US Phase I/Ib clinical trial (NCT06391918), to complete the dose escalation and expand tumor types, is ongoing, following data from 61 patients in a Phase 1 trial in Asia, which demonstrated safety and tolerability as well as signs of clinical benefit (NCT04313868). This therapeutic approach should be enhanced with checkpoint inhibitor treatment options.

Mechanism: The vector mRNA payload encodes an optimized prodrug-activated enzyme (and an immunostimulatory cytokine), which is designed, in the presence of the orally-administered prodrug, to cause tumor cell killing, releasing the patient's full complement of unique personal tumor neoantigens to directly stimulate immune activation, facilitated and augmented by the immunostimulatory cytokine. It is anticipated that these tumor-lytic immune cells will subsequently amplify and maintain ongoing tumor cell killing, including tumors at metastatic sites.

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Forward-Looking Statements

This press release contains forward-looking statements of GenVivo, Inc. (“GenVivo”) that involve substantial risks and uncertainties. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “target,” “should,” “would,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These statements are based on current scientifically-based mechanisms, understandings, and expectations and are not guarantees of future performance. GenVivo may not actually achieve the plans, intentions, or expectations disclosed in these forward-looking statements, and you should not place undue reliance on these forward-looking statements. In addition, the forward-looking statements included in this press release represent GenVivo’s views as of the date of this press release. GenVivo anticipates that subsequent events and developments will cause its views to change. However, while GenVivo may elect to update these forward-looking statements at some point in the future, it specifically disclaims any obligation to do so.

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