September 12, 2022

# GT Biopharma Poster Presentation and Mini Oral Session at ESMO Congress 2022 Demonstrates GTB-5550 TriKE® Ability to Specifically Target and Efficiently Kill Multiple B7H3+ Solid and Hematologic Malignancies

- GTB-5550 generates a robust and NK cell specific proliferation signal compared to IL-15 alone
- GTB-5550 specifically targets B7-H3+ cells
- GTB-5550 effectively induced NK cell degranulation and interferon gamma production in response to various prostate, brain tumor (atypical rhabdoid/teratoid), HNSCC, multiple myeloma, sarcoma, ovarian, and myeloid malignancies
- GTB-5550 TriKE In vivo activity in xenogeneic models of human tumor is underway and already validating in vitro studies

BRISBANE, Calif., Sept. 12, 2022 (GLOBE NEWSWIRE) -- GT Biopharma, Inc. (the "Company" or "GTB") (NASDAQ: GTBP), a clinical stage immuno-oncology company focused on developing innovative therapeutics based on the Company's proprietary natural killer (NK) cell engager, TriKE® platform, today announced highlights of an accepted abstract titled, *"B7H3-Targeted Tri-specific Killer Engagers deliver IL-15 to NK cells but not T cells, and specifically targets solid tumors as a pan-tumor antigen strategy mediated through NK cells,"* for poster presentation both virtually at the European Society for Medical Oncology ("ESMO") Congress 2022 being held at the Paris Expo Porte de Versailles from September 9-13, in Paris, France.

**GTB-5550** product candidate is in development for the treatment of B7H3 positive solid tumor cancers and multiple myeloma. GTB-5550 TriKE is a tri-specific molecule composed of a dual camelid nanobody that binds the CD16 receptor on NK cells, the single chain variable fragment (scFv) of an anti-B7H3 antibody, and human IL-15.

**Highlights of the abstract poster and mini-oral session include:**

- GTB-5550 gives a robust and NK cell specific proliferation signal compared to IL-15 alone
- GTB-5550 specifically targets B7-H3+ cells
- GTB-5550 effectively induced NK cell degranulation and interferon gamma production in response to various prostate, brain tumor (atypical rhabdoid/teratoid), HNSCC, multiple myeloma, sarcoma, ovarian, and myeloid malignancies
- GTB-5550 TriKE In vivo activity in xenogeneic models of human tumor is underway and already validating in vitro studies

“GT Biopharma’s TriKE platform harnesses the natural killing power of NK cells with protein therapeutics, not NK cell therapy. Our approach induces activation of NK cells via CD16 and IL-15 while targeting well-known tumor antigens, offering a potentially safer alternative to T-cell related immunotherapy without cytokine release syndrome and neurotoxicity and we expect to submit an Investigational New Drug (IND) application in 2023 in solid tumors,” said Michael Breen, Executive Chairman and Interim CEO of GT Biopharma.”

## About the Study

**Background**
IL-15, the homeostatic factor for NK cells is being clinically developed but it has little anti-tumor activity alone. GT Biopharma hypothesized that targeted delivery of IL-15 to NK cells along with Antibody-Dependent Cell-Mediated Cytotoxicity (ADCC) would impart NK cells with specificity to tumor antigens. As proof of concept, a clinical trial of GTB-3550 (a CD33-targeted Tri-specific Killer Engager (TriKE) in AML) induced endogenous NK cell expansion and activation in refractory AML patients. GTB-5550 (a B7H3 TriKE) was developed as a novel dual camelid (cam) TriKE containing wild type IL-15 and comprised of two cam engagers: targeting CD16 on NK cells and B7H3 on multiple solid tumors.

**Method**
The IL-15 activity of the B7H3 TriKE was measured in proliferation assays. Tumors were incubated with NK cells with or without B7H3 TriKE. In some tumors, CRISPR tech was used to knockout B7H3 to serve as a specificity control as well as B7H3 negative hematologic tumors. NK cell function was measured by flow cytometry and in live tumor imaging assays.

**Results**
B7H3 TriKE was titrated onto lymphocytes resulting in a dose- dependent proliferation of NK cells but not T cells. This was in marked contrast to rhIL-15, that stimulated both, suggesting different biologic activity of IL-15 when delivered through the camCD16 engager. camB7H3 was broadly expressed on prostate, head and neck, ovarian and glioblastoma cancers as well as multiple myeloma. We observed a B7H3 TriKE dose-dependent increase in CD107a degranulation and inflammatory cytokines to all B7H3 positive targets that was highly specific, with no response seen with B7H3 negative hematologic targets and control lines created with a CRISPR knockout of B7H3. Compared to rhIL-15, GTB-5550 given at molar equivalent dosing induced B7H3 killing in in a dose-dependent manner above that seen with rhIL-15 induced natural cytotoxicity. In vivo activity in xenogeneic models of human tumor is underway and already validating our in vitro studies.

**ESMO Congress 2022 presentation details:**
**Poster Presentation Display (#755P) Title:** “B7H3-Targeted Tri-specific Killer Engagers

Deliver IL-15 to NK Cells But Not T Cells, And Specifically Targets Solid Tumors As a Pan-Tumor Antigen Strategy Mediated Through NK Cells”
**Session:** Investigational Immunotherapy
**Speaker:** Dr. Jeffrey S. Miller
**Location:** 7.3.O - Orléans Auditorium
**Date and Time:** Saturday, September 10, 2022 at 14:45 - 16:15 (CEST)

ESMO Congress 2022 has published full abstracts on their website. GT Biopharma will post its poster on the company's website in the "Presentations" section during the conference.

For abstract and event details please visit: https://www.esmo.org/meetings/esmo-congress-2022.

**About GT Biopharma, Inc.**
GT Biopharma, Inc. is a clinical stage biopharmaceutical company focused on the development and commercialization of immuno-oncology therapeutic products based on our proprietary TriKE® NK cell engager platform. Our TriKE® platform is designed to harness and enhance the cancer killing abilities of a patient’s immune system’s natural killer cells. GT Biopharma has an exclusive worldwide license agreement with the University of Minnesota to further develop and commercialize therapies using TriKE® technology. For more information, please visit gtbiopharma.com.

**Forward-Looking Statements**
Certain statements in this press release may constitute "forward-looking statements" regarding future events and our future results. All statements other than statements of historical facts are statements that could be deemed to be forward-looking statements. These statements are based on current expectations, estimates, forecasts, and projections about the markets in which we operate and the beliefs and assumptions of our management. Words such as "expects," "anticipates," "targets," "goals," "projects", "intends," "plans," "believes," "seeks," "estimates," "endeavors," "strives," "may," or variations of such words, and similar expressions are intended to identify such forward-looking statements. Readers are cautioned that these forward-looking statements are subject to a number of risks, uncertainties and assumptions that are difficult to predict, estimate or verify. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. Such risks and uncertainties include those factors described in our most recent annual report on Form 10-K, as such may be amended or supplemented by subsequent quarterly reports on Form 10-Q, or other reports filed with the Securities and Exchange Commission. Readers are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements are made only as of the date hereof, and we undertake no obligation to publicly release the result of any revisions to these forward-looking statements. For more information, please refer to our filings with the Securities and Exchange Commission.



**Investor Relations Contacts:**

**LifeSci Advisors**
Corey Davis, Ph.D.
cdavis@lifesciadvisors.com

212-915-2577


Source: GT Biopharma, Inc.