Hillstream's New Anti-Cancer Mechanism Quatramer-based Ferroptosis Inducer, HSB-1216, Abstract for EORTC-NCI-AACR Symposium (ENA 2022) Published Showing Suppression of Acute Myeloid Leukemia (AML) cells

Abstract highlights data from HSB-1216 in suppressing Acute Myeloid Leukemia (AML) Midostaurin and Venetoclax drug-resistant cells

Bridgewater, NJ – October 18, 2022 – Hillstream BioPharma, Inc. ("Hillstream"), a biotechnology company developing novel therapeutic candidates targeting ferroptosis, an emerging new anti-cancer mechanism resulting in iron-mediated cell death for drug resistant and devastating cancers, today announced that an abstract highlighting the progress of the Quatramer-based Ferroptosis Inducer, HSB-1216 in suppressing acute myeloid leukemia growth, are available as a poster at the 34th EORTC- NCI - AACR Symposium (ENA 2022) in Barcelona taking place from October 26 -28, 2022.

Acute myeloid leukemia (AML) is characterized by the unbridled proliferation of myeloid progenitor cells. Unfortunately, despite recent advances in the treatment, the prognosis is poor for almost all older adults and half of patients under age 60. Leukemic stem cells (LSCs) represent a subset of the leukemic cell population contributing to leukemia relapse and are relatively refractory to conventional treatments.

HSB-1216 treatment resulted in growth inhibition and induction of cell death in multiple AML cell lines. Additionally, Midostaurin (FLT-3 and pan kinase inhibitor)-resistant and Venetoclax-resistant AML cells are sensitive to HSB-1216-induced growth arrest. "The accepted abstract summarizes non-clinical findings using HSB-1216 as a single agent and in combination with decitabine in acute myeloid leukemia (AML), a significant unmet need" stated Randy Milby, CEO of Hillstream BioPharma. "In addition, we are actively evaluating the potential utility of HSB-1216 in a variety of solid tumor types."

The poster website will be available two weeks prior to the meeting.

Abstract Number 141: *Novel iron mediated cell death (ferroptosis) inducer HSB-1216; suppress acute myeloid leukemia growth*

- Session Type: Poster
- Session Category: Apoptosis inducers
- Session Title: Novel iron mediated cell death (ferroptosis) inducer HSB-1216, suppress acute myeloid leukemia growth

The abstract will be published online on the ENA 2022 website (https://event.eortc.org/ena2022) two weeks before the meeting, and will be accessible on the Hillstream website (www.hillstreambio.com).

About HSB-1216

HSB-1216 is a novel and potent inducer of an emerging mechanism of cell death called ferroptosis. This process allows HSB-1216 to cause lysosomal membrane permeabilization of hard-to-treat cancer cells – causing them to rupture and stop replicating. The development of HSB-1216 is focused on a variety of solid tumors with high unmet need. HSB-1216 leverages the Quatramer platform, a tumor-targeted platform with capacity to deliver drug and biologic combinations to solid tumors. Quatramer enhances the uptake of HSB-1216 in the tumor microenvironment with an extended duration of action and

minimal off-target toxicity. Quatramer offers the potential to significantly improve the profile and widen the therapeutic window of HSB-1216 and other small molecules, peptides, cytokines and oligomers preferentially delivered to tumors. Quatramer building blocks are pH-triggered to degrade intra-cellularly.

About Hillstream BioPharma Inc.

Hillstream BioPharma, Inc. is a biotechnology company developing novel therapeutic candidates targeting ferroptosis, an emerging new anti-cancer mechanism resulting in iron mediated cell death for drug resistant and devastating cancers. Hillstream's most advanced candidate is HSB-1216, an IMCD modulator, targeting a variety of solid tumors. The active drug in HSB-1216 was found to be efficacious in a clinical pilot study in Germany in devastating cancers, including triple negative breast cancer and epithelial carcinomas. Hillstream intends to initiate IND discussions with the FDA in first half of 2023. Hillstream uses Quatramer™, our proprietary tumor targeting platform, to enhance the uptake of HSB-1216 in the tumor microenvironment with an extended duration of action and minimal off-target toxicity. For more information, please visit:www.hillstreambio.com.

Forward Looking Statements

Certain statements in this press release are forward-looking within the meaning of the Private Securities Litigation Reform Act of 1995. These statements may be identified using words such as "anticipate," "believe," "forecast," "estimated" and "intend" or other similar terms or expressions that concern Hillstream's expectations, strategy, plans or intentions. These forward-looking statements are based on Hillstream's current expectations and actual results could differ materially. There are several factors that could cause actual events to differ materially from those indicated by such forward-looking statements. These factors include, but are not limited to, clinical trials involve a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results; our clinical trials may be suspended or discontinued due to unexpected side effects or other safety risks that could preclude approval of our product candidates; risks related to business interruptions, including the outbreak of COVID-19 coronavirus, which could seriously harm our financial condition and increase our costs and expenses; dependence on key personnel; substantial competition; uncertainties of patent protection and litigation; dependence upon third parties; and risks related to failure to obtain FDA clearances or approvals and noncompliance with FDA regulations. Investors should read the risk factors set forth in our Form 10-K for the year ended December 31, 2021 and our periodic reports filed with the Securities and Exchange Commission. While the list of factors presented here is considered representative, no such list should be considered to be a complete statement of all potential risks and uncertainties. Unlisted factors may present significant additional obstacles to the realization of forward-looking statements. Forward-looking statements included herein are made as of the date hereof, and Hillstream does not undertake any obligation to update publicly such statements to reflect subsequent events or circumstances.

Hillstream BioPharma Inc.

Investor Contact: investorrelations@hillstreambio.com

###