Scopus BioPharma's Subsidiary — Duet Therapeutics — Announces Release of Preclinical Data Being Presented at 17th Annual Meeting of the Oligonucleotide Therapeutics Society

Data from two different studies benchmark Duet's proprietary bifunctional oligonucleotides against immune checkpoint inhibitors ("Checkpoint Inhibitors") in lymphoma and prostate tumor models in mice

Studies indicate Duet's bifunctional oligonucleotides — CpG-STAT3siRNA (DUET-01) and CpG-STAT3ASO (DUET-02) — can expand reach and efficacy of cancer immunotherapies beyond the current standard-of-care treatments

New York, New York, September 29, 2021 – Scopus BioPharma Inc. (Nasdaq: "SCPS"), a clinical-stage biopharmaceutical company developing transformational therapeutics for serious diseases with significant unmet medical need, today announced the release of preclinical data being presented at the 17th Annual Meeting of the Oligonucleotide Therapeutics Society.

Alan Horsager, Ph.D., President and Chief Executive Officer of Duet Therapeutics and President — Immuno-Oncology of Scopus, is presenting data in talks entitled:

- *Bispecific Oligonucleotide Targeting TLR9 and STAT3 Signaling for B Cell Lymphoma Immunotherapy*
- *Bifunctional Oligonucleotides for Systemic Treatment of Immunologically Cold Solid Tumors*

Duet Therapeutics is a wholly-owned subsidiary of Scopus.

Data from two different studies benchmarked Duet's proprietary bifunctional oligonucleotides, CpG-STAT3siRNA (DUET-01) and CpG-STAT3ASO (DUET-02), against Checkpoint Inhibitors in lymphoma and prostate tumor models in mice.

Dr. Horsager is presenting results of a study comparing Duet's clinical-stage, siRNA-based molecule, or DUET-01, to Checkpoint Inhibitors in an A20 mouse model of B-cell lymphoma. PD-1 and CTLA-4 Checkpoint Inhibitors had limited efficacy while intratumoral administration of DUET-01 resulted in complete lymphoma regression.

Dr. Horsager is also presenting results of a study comparing Duet's antisense-based bifunctional molecule, or DUET-02, to both PD-1 and CTLA-4 Checkpoint Inhibitors in a bone localized tumor model of metastatic prostate cancer. Clinical observations have indicated that these prostate tumors are resistant to Checkpoint Inhibitors. By comparison, data collected in the laboratory of Marcin Kortylewski, Ph.D., Duet's Senior Scientific Advisor, DUET-02 monotherapy induced potent antitumor immune responses and resulted in long-term animal survival.

Overall, the studies indicate that Duet's bifunctional oligonucleotides can expand the reach and efficacy of cancer immunotherapies beyond the current standard-of-care treatments.

Dr. Horsager stated, "These data show compelling evidence that Duet's bifunctional molecules could expand the use of immunotherapies in the treatment of both hematological malignancies and solid tumors to a larger group of patients. We believe that it is the bifunctionality of the molecules that creates the potential for durable antitumor responses."

About the *Duet Platform*

Duet Therapeutics integrates the immunotherapy assets of Scopus and Olimmune, creating the *Duet Platform*. Olimmune was acquired by Scopus in June 2021. Duet is a wholly-owned subsidiary of Scopus.

The *Duet Platform* is comprised of three distinctive, complementary CpG-STAT3 inhibitors:

- RNA silencing CpG-STAT3siRNA ("*DUET-01*")
- Antisense CpG-STAT3ASO ("*DUET-02*")
- DNA-binding inhibitor CpG-STAT3decoy ("*DUET-03*")

DUET-01 is in a Phase 1 clinical trial, as a monotherapy, for B-cell non-Hodgkin lymphoma. Duet expects to file two INDs for DUET-02 in Q4 2022 in genitourinary and head & neck cancers, with clinical Phase 1 trials beginning in Q1 2023 in the United States. Duet is also evaluating combination therapies with checkpoint inhibitors.

About Scopus BioPharma

Scopus BioPharma Inc., both directly and through subsidiaries, is a clinical-stage biopharmaceutical company developing transformational therapeutics for serious diseases with significant unmet medical need. The company's lead drug candidate is a novel, targeted immuno-oncology RNA therapy for the treatment of multiple cancers. This drug candidate is highly distinctive, encompassing both RNA therapy and immunotherapy by synthetically linking siRNA to an oligonucleotide TLR9 agonist, creating the potential for targeted gene silencing with simultaneous TLR stimulation and immune activation in the tumor microenvironment. Additional STAT3-targeting immunotherapy drug candidates include bifunctional antisense and DNA-binding inhibition therapies. In addition, the company is developing additional drug candidates that target the endocannabinoid system, including MRI-1867 for the treatment systemic sclerosis. The company also seeks to identify additional compelling technologies for potential acquisition, in-licensing and/or other similar transactions. Receive updates by following Scopus BioPharma on Twitter here.

Forward-Looking Statements

This press release may include forward-looking statements that involve risks and uncertainties. Forward-looking statements are statements that are not historical facts. Such forward-looking

statements are subject to risks (including those set forth in the company's Form 10-K for the fiscal year ended December 31, 2020, as amended, filed with the U.S. Securities and Exchange Commission ("SEC")) and uncertainties which could cause actual results to differ from the forward-looking statements. The company expressly disclaims any obligations or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in the company's expectations with respect thereto or any change in events, conditions or circumstances on which any statement is based. Investors should realize that if our underlying assumptions for the projections contained herein prove inaccurate or that known or unknown risks or uncertainties materialize, actual results could vary materially from our expectations and projections. Further, there can be no assurance that the company will identify and/or consummate any transaction relating to any additional technologies.

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