July 30, 2025

Xenetic Biosciences, Inc. Announces Entry by Collaboration Partner into Clinical Study Agreement to Advance Development of DNase Platform for the Treatment of Large B Cell Lymphoma

Investigator initiated study with collaboration partner, PeriNess, to be conducted at the Tel-Aviv Sourasky Medical Center

FRAMINGHAM, MA / ACCESS Newswire / July 30, 2025 / Xenetic Biosciences, Inc. (NASDAQ:XBIO) ("Xenetic" or the "Company"), a biopharmaceutical company focused on advancing innovative immuno-oncology technologies addressing difficult to treat cancers, today announced that its collaboration partner, PeriNess Ltd. ("PeriNess"), has entered into a Clinical Study Agreement (the "Agreement") to support an exploratory clinical study of DNase I in combination with anti-CD19 CAR T cells in patients with large B cell lymphoma.

Dr. Ron Ram, Professor of Medicine and Head of the Bone Marrow Transplantation Unit at the Tel Aviv Sourasky Medical Center ("Sourasky Center"), will act as the principal investigator of the study.

The primary objective of this study is to explore the safety and tolerability of DNase I in combination with anti-CD19 CAR T therapy in subjects with stable or progressive large B-cell lymphoma when DNase I is given in an adjuvant setting. Secondary objectives include efficacy to be evaluated by the measure of complete response rate post CAR T infusion, duration of response and overall survival. The study has the potential for a strong translational component with a complex assessment of biomarker response and analysis of anti-CD19 CAR T expansion and persistence.

"Our data suggests that the degradation of Neutrophil Extracellular Traps (NETs) by DNase I plays a crucial role in maintaining CAR T-cell function and preventing premature CAR T-cell exhaustion. Our preclinical studies conducted show that co-administration of DNase I with anti-CD19 CAR T cells significantly reduce tumor burden, delay tumor relapse and substantially prolong survival compared to the anti-CD19 CAR T cell monotherapy groups in various syngeneic and xenogeneic experimental models of lymphoma and leukemia," stated Alexey Stepanov, PhD, Institute Investigator at the Scripps Research Institute, and a member of Xenetic's Scientific Steering Committee.

"Progression of large B cell lymphoma (LBCL) is the major obstacle for the success of CAR T therapies, with approximately 40-60% of the patients relapsing in the first year, and 25-35% within 3 months after CAR T infusion, depending on the CAR T product used. While

patients with partial or complete response before CAR T infusion have a 1-year progression free survival of 60-80%, those with stable or progressive disease at the time of CAR T infusion have a 1-year progression free survival of 20-30%. NETs facilitate several hallmarks of cancer biology at various stages, including progression, invasion, metastasis, immunosuppression, immune escape, and resistance to therapy. A high content of NETs in lymphoma tissue and blood of patients was associated with a negative outcome. The goal of this clinical study is to improve clinical response by administering DNase I to abrogate the negative effects of NETs on the performance of immune system and CAR T cells," added Dr. Ram.

James Parslow, Interim Chief Executive Officer and Chief Financial Officer of Xenetic concluded, "We are pleased with the continued progress of our DNase I program and the expansion of its development in another exploratory study to further evaluate its potential in various oncology indications. We look forward to garnering additional data to realize the full potential of DNase I."

As previously announced, in December 2024, Xenetic entered into a Clinical Trial Services Agreement with PeriNess, under which PeriNess will lead in the regulatory approval, operational execution and management of potential exploratory, investigator-initiated studies of recombinant DNase I as an adjunctive treatment in patients with pancreatic carcinoma and other locally advanced or metastatic solid tumors receiving chemotherapy and immunotherapy in Israeli medical centers.

About Xenetic Biosciences

Xenetic Biosciences, Inc. is a biopharmaceutical company focused on advancing innovative immuno-oncology technologies addressing difficult to treat cancers. The Company's DNase technology is designed to improve outcomes of existing treatments, including immunotherapies, by targeting neutrophil extracellular traps (NETs), which are involved in the progression of many human cancers. Xenetic is currently focused on advancing its systemic DNase I program into the clinic as an adjunctive therapy for pancreatic carcinoma and locally advanced or metastatic solid tumors.

For more information, please visit the Company's website atwww.xeneticbio.com and connect on X, LinkedIn, and Facebook.

Forward-Looking Statements

This press release contains forward-looking statements that we intend to be subject to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release other than statements of historical facts may constitute forward-looking statements within the meaning of the federal securities laws. These statements can be identified by words such as "expects," "plans," "projects," "will," "may," "anticipates," "believes," "should," "intends," "estimates," "remain," "focus", "confidence in", "potential", and other words of similar meaning, including, but not limited to, all statements regarding expectations with respect to the Clinical Trial Services Agreement with PeriNess, including statements regarding the proposed investigator-initiated study under such agreement to support an exploratory clinical study of our systemic DNase I candidate in patients with large B-cell lymphoma and the expected objectives and goal of such study, and all statements regarding expectations for our DNase-base oncology platform, including

statements regarding: our overall development strategy, the progress of our DNase I program, our expectations regarding further expansion of our body of clinical data, our focus on advancing innovative immune-oncology technologies addressing difficult to treat cancers, the DNase technology improving outcomes of existing treatments, including immunotherapies, by targeting neutrophil extracellular traps (NETs), which are involved in the progression of many cancers, and our focus on advancing our systemic DNase program into the clinic as an adjunctive therapy for pancreatic carcinoma and locally advanced or metastatic solid tumors. Any forward-looking statements contained herein are based on current expectations and are subject to a number of risks and uncertainties. Many factors could cause our actual activities, performance, achievements, or results to differ materially from the activities and results anticipated in forward-looking statements. Important factors that could cause actual activities, performance, achievements, or results to differ materially from such plans, estimates or expectations include, among others, (1) the relevance of, or our ability to utilize, the data, if any, from any investigator-initiated exploratory study, (2) unexpected costs, charges or expenses resulting from our manufacturing and collaboration agreements, including the Clinical Trial Services Agreement with PeriNess; (3) unexpected costs, charges or expenses resulting from the licensing of the DNase platform; (4) uncertainty of the expected financial performance of the Company following the licensing of the DNase platform; (5) failure to realize the anticipated potential of the DNase technologies; (6) the ability of the Company to obtain funding and implement its business strategy; and (7) other risk factors as detailed from time to time in the Company's reports filed with the SEC, including its annual report on Form 10-K, periodic quarterly reports on Form 10-Q, current reports on Form 8-K and other documents filed with the SEC. The foregoing list of important factors is not exclusive. In addition, forward-looking statements may also be adversely affected by general market factors, general economic and business conditions, including potential adverse effects of public health issues and geopolitical events, such as the conflicts in the Ukraine and in the Middle East, on economic activity, competitive product development, product availability, federal and state regulations and legislation, the regulatory process for new product candidates and indications, manufacturing issues that may arise, patent positions, litigation, and shareholder activism, among other factors. The forward-looking statements contained in this press release speak only as of the date the statements were made, and the Company does not undertake any obligation to update forward-looking statements, except as required by law.

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SOURCE: Xenetic Biosciences, Inc.