March 26, 2025

Xenetic Biosciences, Inc. Announces Entry by Collaboration Partner into a Clinical Study Agreement to Advance Development of DNase Platform for the Treatment of Relapsed/Refractory Osteosarcoma and Ewing Sarcoma

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

FRAMINGHAM, MA / ACCESS Newswire / March 26, 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 Xenetic's systemic DNase I candidate, XBIO-015, in patients with relapsed/refractory osteosarcoma and Ewing sarcoma.

Prof. Ronit Elhasid, Director of Pediatric Hemato-Oncology and Bone Marrow Transplantation Department at the Dana-Dwek Children's Hospital in the Tel-Aviv Sourasky Medical Center ("Sourasky Center"), will act as the principal investigator and co-sponsor of the study along with the Health Corporation of the Tel Aviv Medical Center, an affiliate of the Sourasky Center.

"The primary objective of this study is to explore safety and tolerability in patients with relapsed/refractory osteosarcoma or Ewing sarcoma receiving XBIO-015 in combination with relapsed chemotherapy regimens. Secondary objectives include efficacy to be evaluated by the measure of objective response rate and progression-free survival. The study has a strong translational component with a complex assessment of biomarker response. Data on DNase I efficacy in combinations with chemotherapy in experimental models has encouraged us to support the study," stated Reid P. Bissonnette, Ph.D., Executive Consultant for Translational Research and Development of Xenetic.

Ewing sarcoma and osteosarcoma are aggressive orphan pediatric cancers that grow in bones or soft tissues. There is a lack of effective treatment options for children with recurrent and refractory disease where the five-year survival rate is only 20 to 30 percent. Studies conducted at Tel Aviv Sourasky Medical Center between 2013 and 2024 showed that the formation of neutrophil extracellular traps (NETs) in the tumor microenvironment of pediatric sarcomas is an independent prognostic factor, with a clear association between NETs

burden and poor prognosis. According to the above research, elevated levels of NETs at diagnosis predicted a poor response to neoadjuvant chemotherapy, relapse, and death from the disease. Xenetic's proprietary recombinant DNase I is an enzyme that digests NETs in a tumor microenvironment.

James Parslow, Interim Chief Executive Officer and Chief Financial Officer of the Company stated, "As part of our overall development strategy, we aim to participate in a series of exploratory studies to evaluate XBI0-015 combinations with chemotherapy, radiotherapy and immunotherapy in various oncology indications. Our commitment to the DNase program remains steadfast and we are pleased to further expand our body of clinical data."

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 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 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 Agreement, including statements regarding the proposed study under the Agreement to support an exploratory clinical study of our systemic DNase I candidate, XBIO-015, in patients with metastatic or relapsed osteosarcoma and Ewing sarcoma and the expected objectives of such study, and all statements regarding expectations for our DNase-base oncology platform, including statements regarding: our overall development strategy, our commitment to the DNase 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) unexpected costs, charges or expenses resulting from our manufacturing and collaboration agreements, including the Clinical Trial Services Agreement with PeriNess; (2) unexpected costs, charges or expenses resulting from the licensing of the DNase platform; (3) uncertainty of the expected financial performance of the Company following the licensing of the DNase platform; (4) failure to realize the anticipated potential of the DNase technologies; (5) the ability of the Company to obtain funding and implement its business strategy; and (6) 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.