January 17, 2024

Xenetic Biosciences, Inc. Enters into Research Agreement with the University of Virginia for the Advancement of its DNase-Based Oncology Platform

- Company building growing body of preclinical data to guide pathway to first in human trial for DNase-based oncology platform

FRAMINGHAM, MA / ACCESSWIRE / January 17, 2024 /Xenetic Biosciences, Inc. (NASDAQ:XBIO) ("Xenetic" or the "Company"), a biopharmaceutical company focused on advancing innovative immune-oncology technologies addressing hard to treat cancers, today announced it has entered into a Research Funding Agreement and a Material Transfer Agreement with the University of Virginia ("UVA") to advance the development of its systemic DNase program.

Xenetic's DNase-based oncology platform is designed to target neutrophil extracellular traps ("NETs"), which are weblike structures composed of extracellular chromatin coated with histones and other proteins. NETs are expelled by activated neutrophils, in response to microbial or pro-inflammatory challenges. However, excessive production or reduced clearance of NETs can lead to aggravated inflammatory and autoimmune pathologies, as well as creation and support of pro-tumorigenic niches in the case of cancer growth and metastasis, thereby potentially limiting response to therapy.

Under the terms of the UVA agreements, in addition to advancing Xenetic's existing intellectual property, Xenetic has an option to acquire an exclusive license to any new intellectual property arising from the DNase research program. Allan Tsung, MD, member of the Company's Scientific Advisory Board and Chair of the Department of Surgery at the UVA School of Medicine, will oversee the research conducted under the agreement. As a surgical oncologist and scientist, Dr. Tsung is internationally recognized for leading substantial research on the role of NETs in tumor growth, metastasis, and resistance to existing cancer therapies. Xenetic is working toward its planned first-in-human study to evaluate DNase combined with immune checkpoint inhibitors or chemotherapy.

"We believe the data generated by our research and development collaborations are key to fully unlocking the potential of our DNase technology and importantly, providing translational

insights as we drive a clinical path for our lead solid tumor indications. These agreements provide a significant addition to our development capabilities and resources and we believe it bolsters our opportunity to accelerate development timelines," commented Jeffrey Eisenberg, Chief Executive Officer of Xenetic. "Additionally, we are pleased to deepen our work with Dr. Tsung who has provided a valuable perspective to our team and significant insight for our DNase platform."

"I am looking forward to further exploring the potential of the DNase platform and working with Xenetic to advance the program's development. We share a goal of evaluating the potential addition of DNase to available treatment options in areas of significant unmet need," added Dr. Tsung.

About Xenetic Biosciences

Xenetic Biosciences, Inc. is a biopharmaceutical company focused on advancing innovative immune-oncology technologies addressing hard to treat cancers. The Company's DNase platform is designed to improve outcomes of existing treatments, including immunotherapies, by targeting neutrophil extracellular traps (NETs), which are involved in cancer progression. 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 Twitter, 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," and other words of similar meaning, including, but not limited to, statements regarding: the agreement with UVA, including all statements regarding our belief that the data generated by our research and development collaborations are key to fully unlocking the potential of our DNase technology and providing translational insights, expectations that the agreement provides a significant addition to our development capabilities and resources, and our belief that the collaboration with UVA bolsters our opportunity to accelerate development timelines, and all statements regarding expectations for our DNase-base oncology platform, including encouraging growing body of preclinical data guiding pathway to first in human trial for DNase-based oncology platform, driving development towards Phase 1 program for the treatment of pancreatic carcinoma and other locally advanced or metastatic solid tumors, the DNase platform improving outcomes of existing treatments, including immunotherapies, by targeting neutrophil extracellular traps (NETs), which are involved in cancer progression, 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) failure to achieve the expected outcomes and realize the anticipated benefits from our collaboration agreements, including the agreement with UVA; (2) unexpected costs, charges or expenses resulting from our manufacturing and collaboration agreements, including the agreement with UVA; (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, XCART or PolyXen technologies; (6) the ability of the Company to 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 Russian invasion of Ukraine, 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 and litigation, 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.